

HUNDRED YEARS' WAR: BEHIND THE CENTURY OF BLOODSHED

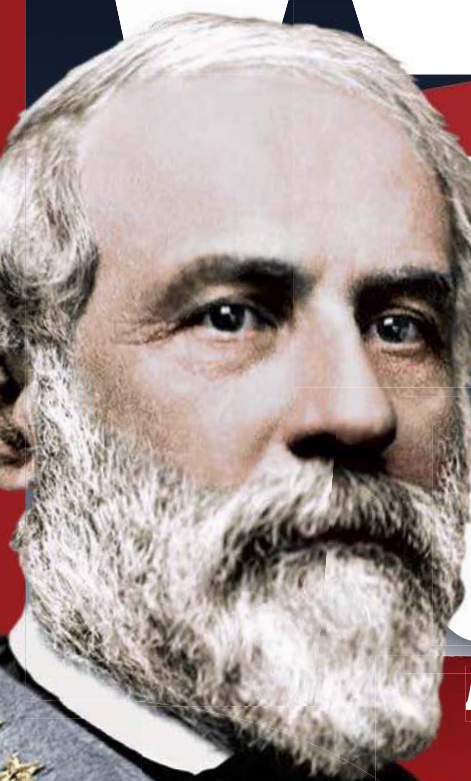
HISTORY *of* WAR



600th
ANNIVERSARY

AGINCOURT

IN THE MEDIEVAL MÊLÉE
OF HENRY V'S VICTORY



LEE ★ ★ VERSUS ★ ★ GRANT

**America's greatest generals clash in
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CRUSH CONSTANTINOPLE?

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FLIGHT OF HITLER'S CONDOR LEGION

Why the Third Reich dominated Spain's savage civil war



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ISSUE 021

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Welcome

“Find out where your enemy is. Get at him as soon as you can. Strike him as hard as you can, and keep moving on”

– Ulysses S Grant

Robert E Lee and Ulysses S Grant are perhaps two of the most often-compared generals in all history, as well as the USA's most celebrated civil war leaders.

These West Point graduates bore the heavy responsibility of command and often took great risks with men's lives to achieve what they saw as the greater quest to heal their nation.

A greater victory was also on Henry V's mind at Agincourt 600 years ago. Here, the king's superb judgement was vital for the survival of the beleaguered English army.

His decision to advance against a superior French force

was as daring as it was genius. It carried great risk, but meant the even greater rewards of gold, glory and maybe even the French throne.



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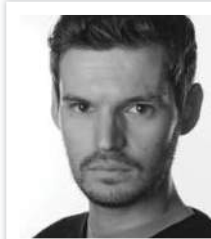
MARC G DESANTIS

Marc is a published author on topics ranging from Ancient Macedonia to the Cold War. In this issue, he pits America's two greatest generals against each other as he recounts the men's military careers in the Civil War and beyond (page 28).



MIGUEL MIRANDA

In his continuing quest to map the entirety of Japanese military history, this issue Miguel has entered the dark yet poetic world of the kamikaze pilot. To learn more about the planes and the pilots of this tragic tactic, turn to page 82.



JACK GRIFFITHS

To commemorate the 600th anniversary of the Battle of Agincourt, this issue Jack has put together an extended Great Battles on the English victory (page 40). He has also tackled the Hundred Years' War in this issue's Frontline section (page 14).

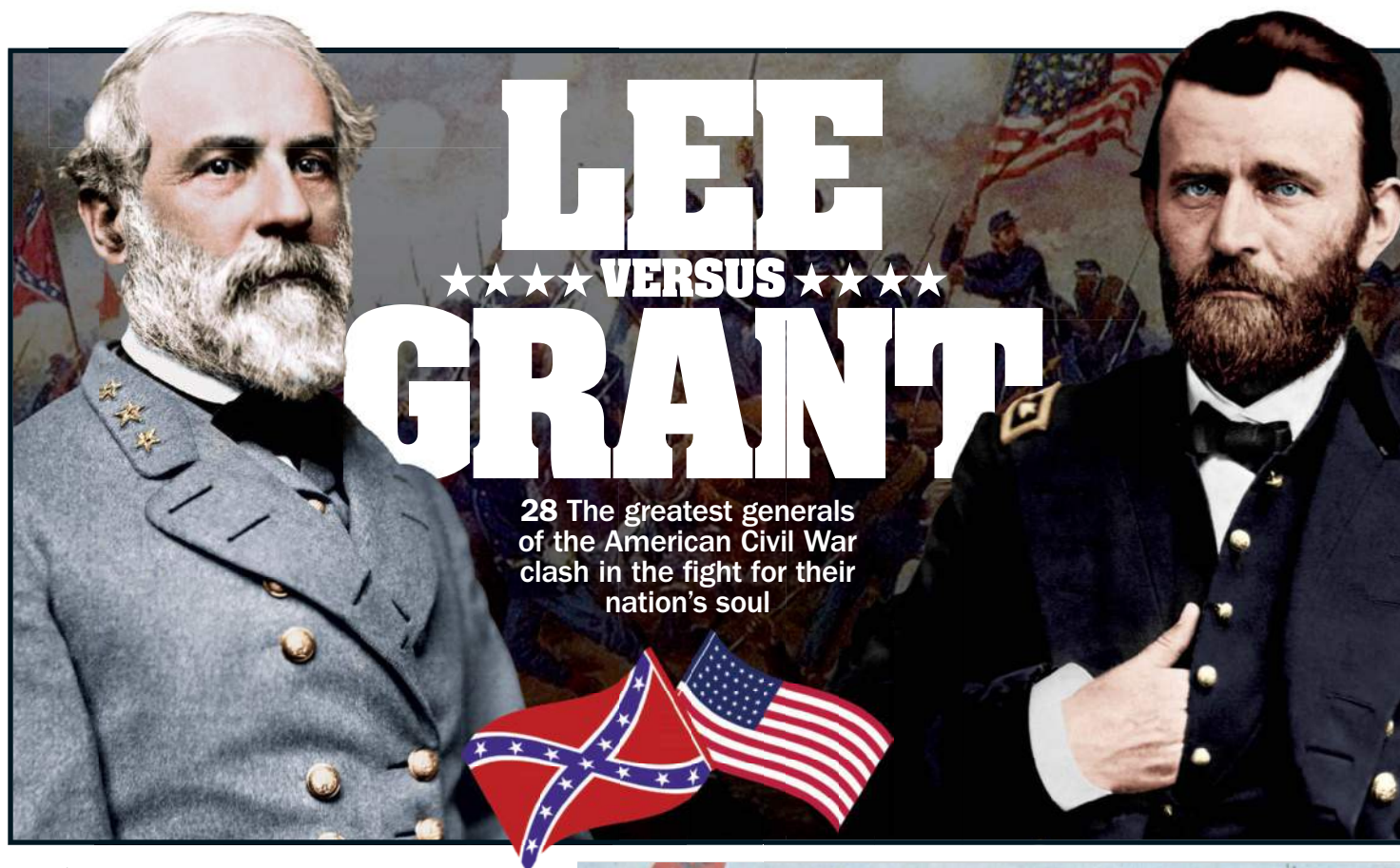
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Ulysses S Grant (centre left) meets with President Lincoln and other generals aboard the River Queen at the civil war's end



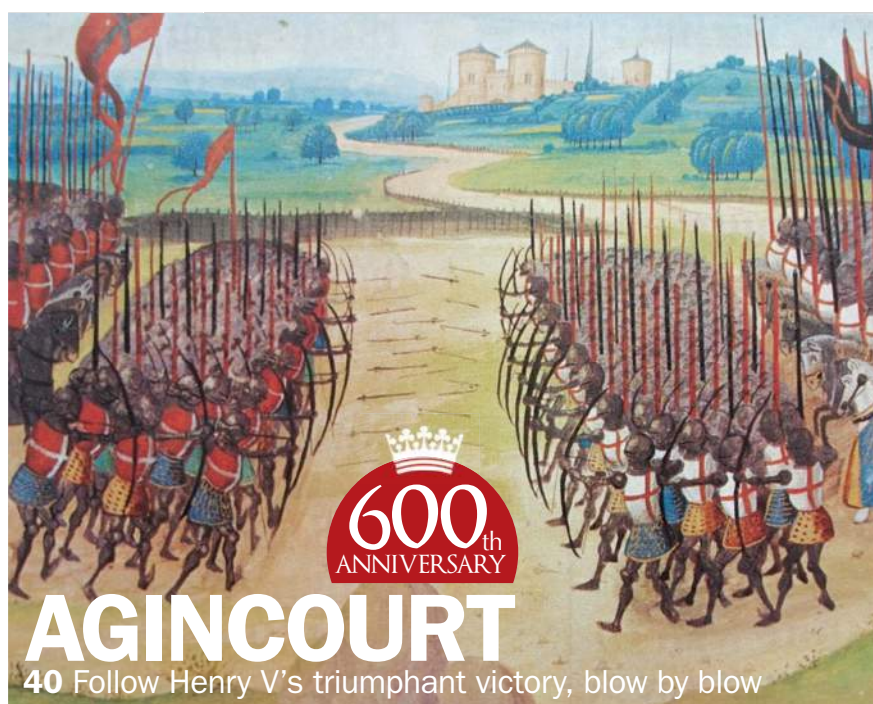


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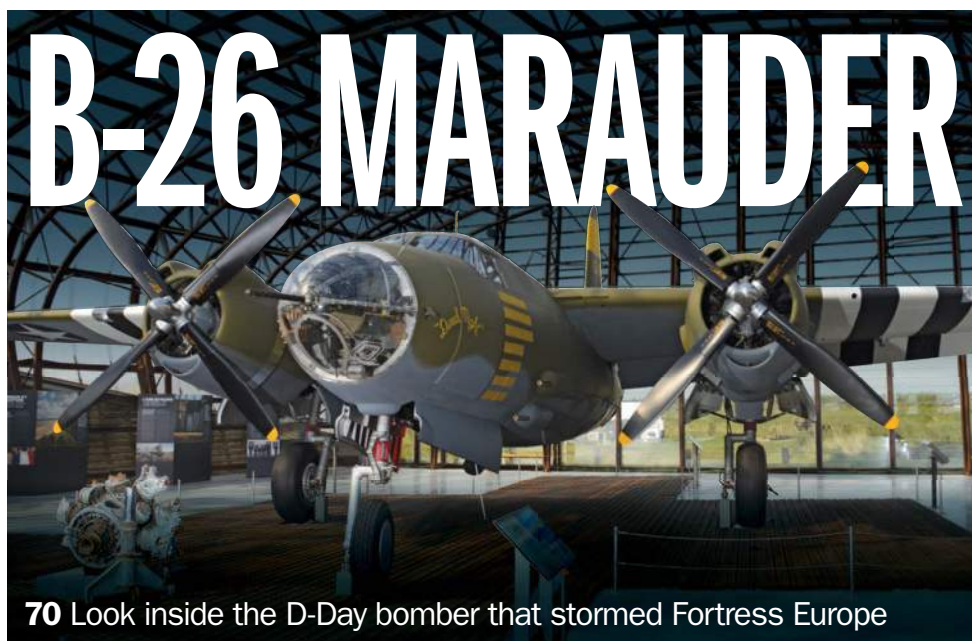
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WARⁱⁿ **FOCUS**

LIGHT ARTILLERY

Taken 12 July 2014

26 Regiment Royal Artillery, at Camp Bastion, fires an illumination round to support nearby British troops on operation. The regiment was formed in 1947 from the 4th Field Artillery Brigade and reunited batteries that had previously served together under other formations for several years. It is the only regiment to have kept its three original gun batteries.

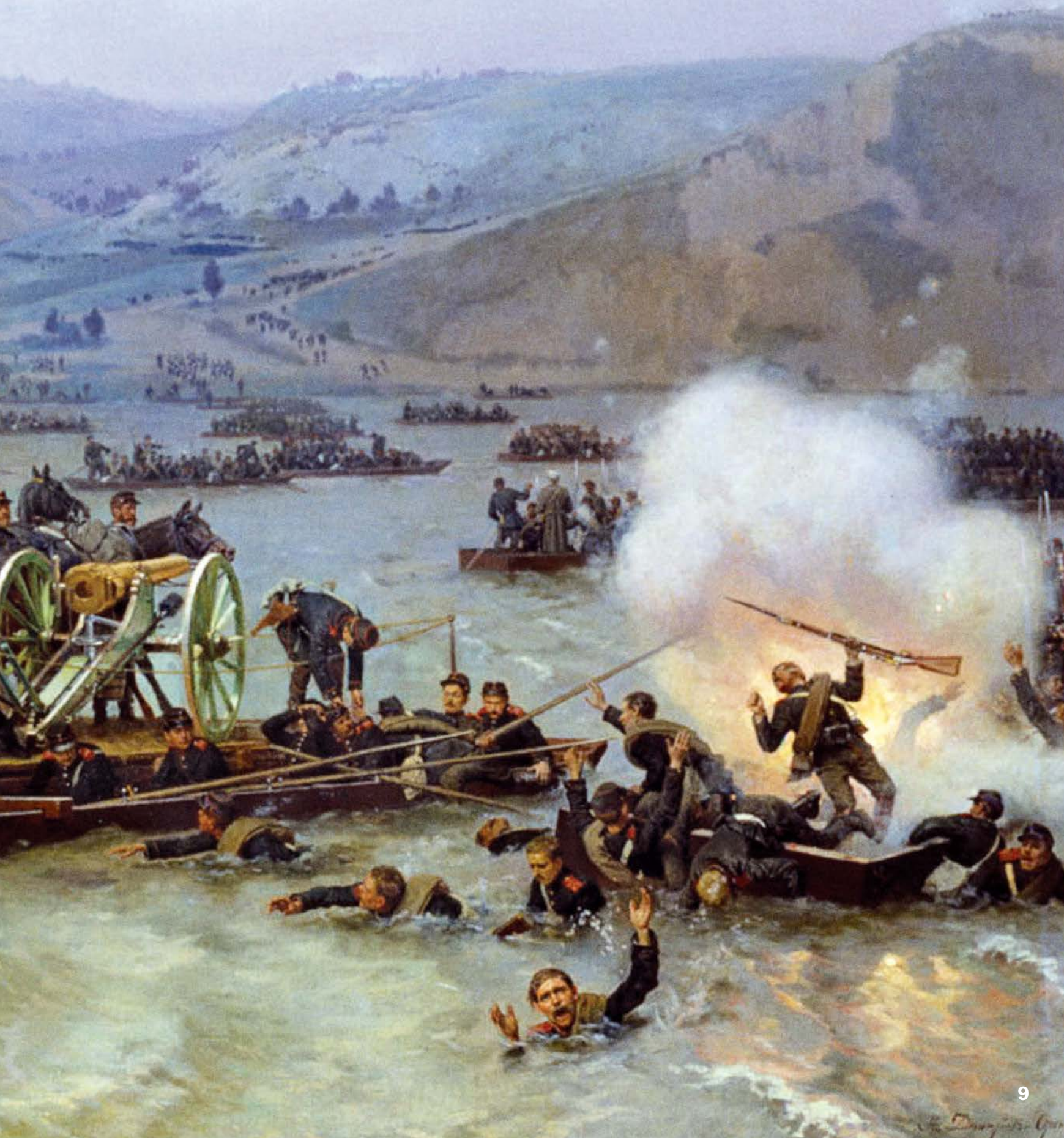
WAR_{in} **FOCUS**

CROSSING OF THE RUSSIAN ARMY OVER THE DANUBE

Painted 1883

Here, Nikolai Dmitriev-Orenburgsky depicts the dramatic scene of some 185,000 Russian troops making a river crossing to attack the Ottoman Empire in June 1877. In just under a year, Russian forces would be within striking distance of Constantinople.







WAR_{in} FOCUS

THE FINAL PUSH

Taken 13 September 1918

American troops from the 107th Infantry, 27th Division, conduct training exercises near the commune of Beauquesne, in the Somme department. This was taken prior to their assault on the Hindenburg Line in the Hundred Days Offensive, where British, American, French and Belgian forces combined to crush the Central Powers.





WAR_{in} **FOCUS**

THE FIRE GOD'S LAST FLIGHT

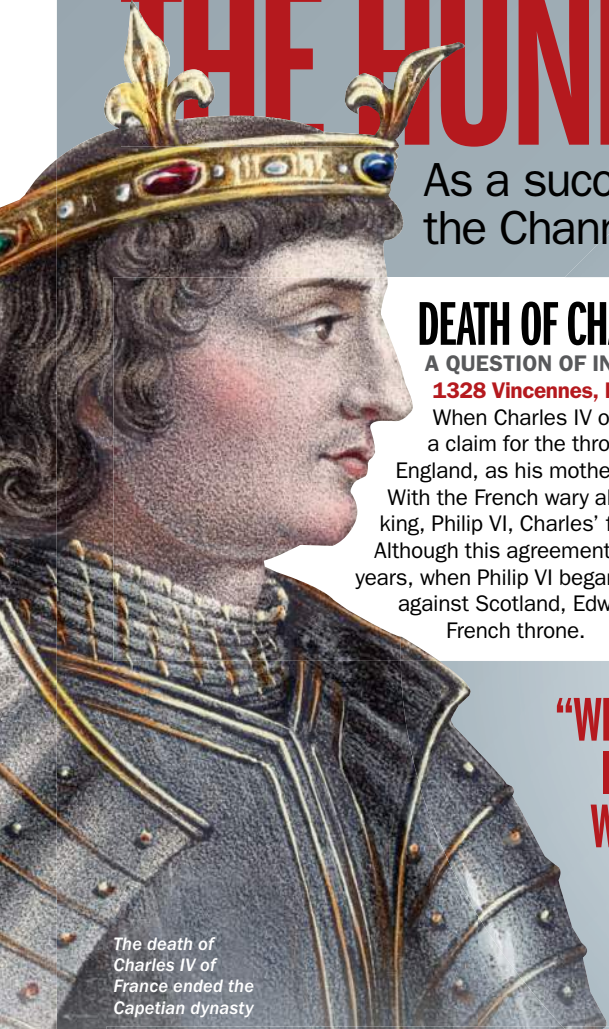
Taken 19 July 2015

Vulcan bomber XH558 flies in formation at the Royal International Air Tattoo, over RAF Fairford, for the very last time. Seen here alongside the Red Arrows, the final airworthy Vulcan ended its flying career in 2015, as it reached the end of its operational life span. It was restored to working order more than a decade ago with popular support.



THE HUNDRED YEARS' WAR

As a succession of English kings fought to rule across the Channel, Medieval Europe was thrown into turmoil



The death of Charles IV of France ended the Capetian dynasty

DEATH OF CHARLES IV

A QUESTION OF INHERITANCE

1328 Vincennes, France

When Charles IV of France died without a male heir, a claim for the throne was made by Edward III of England, as his mother was the sister of the late king. With the French wary about being ruled by an English king, Philip VI, Charles' first cousin, was selected instead. Although this agreement was tolerated for some nine years, when Philip VI began to interfere in Edward's war against Scotland, Edward reasserted his claim to the French throne.

"WHEN PHILIP VI BEGAN TO INTERFERE IN EDWARD'S WAR AGAINST SCOTLAND, EDWARD REASSERTED HIS CLAIM TO THE FRENCH THRONE"



Above: At Crécy, the English lost only about 300 men to France's 2,000

THE BATTLE OF CRÉCY

THE VICTORY THAT SHOCKED THE MEDIEVAL WORLD

1346 Crécy-en-Ponthieu, Picardy

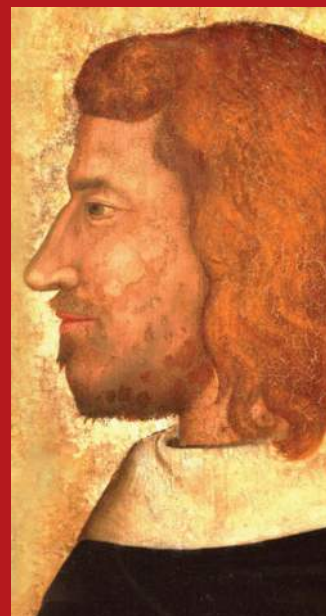
As Edward III tore his way across Normandy, plundering and razing towns, Philip finally assembled his army and prepared to trap the English king. Although Philip's army heavily

outnumbered the English and allied soldiers, Edward won a surprising victory. This was largely helped by the skilful use of artillery and longbowmen, which then became a staple of the English forces.

THE CAPTURE OF KING JOHN II

AN ENGLISH VICTORY AT POITIERS RESULTS IN THE CAPTURE OF A FRENCH KING
1356 Poitiers

The Battle of Poitiers was one of the most significant English victories of the entire war and included the capture of King John the Good by the Black Prince. Taken back to London, the French king would be an important bartering tool for the English even after his death in 1364.



Right: While in captivity, John signed the Treaties of Brétigny and Calais, which brought an end to the first phase of the war

PEASANTS' REVOLT

PANIC ON THE STREETS OF LONDON

1381 England

In England, the effects of fighting a long and bitter war were beginning to show. The country's peasants were forced to pay high taxes to subsidise it and the 1380 poll tax pushed them to breaking point. When a tax collector attempted to gather unpaid taxes in Essex, it led to a full-scale revolt. The rebels marched to London to confront the king directly and Richard II gave in to their demands in the hope of re-establishing peace. However, violence continued and many rebel leaders were tracked down and killed.

Below: The 14-year-old King Richard met with the rebels when they marched on London





BATTLE OF AGINCOURT

WE FEW, WE HAPPY FEW, WE BAND OF BROTHERS

1415 Pas-de-Calais, France

This historic battle pitted Henry V of England against the constable of France, Charles d'Albret. Henry V had invaded France after negotiations to recognise English rule had turned sour, and despite his numbers being heavily depleted through disease, decided to take on a numerically superior French force. Henry's subsequent victory led him to marry the French king's daughter, Catherine, and ushered in a new era of the war.

Right: The conditions at Agincourt, along with the terrain, helped secure an English victory

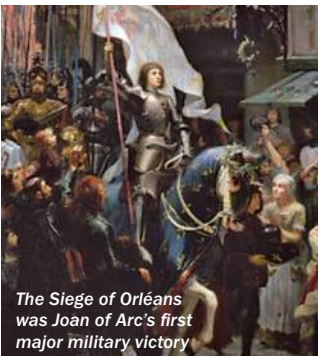
SIEGE OF ORLÉANS

FRANCE'S HEROINE TAKES A STAND

1428-29 Orléans, France

After the crushing defeat at Agincourt, France had struggled to achieve much success against the English, but this changed at Orléans. England had held the siege on the strategic city for almost half a year, and victory seemed assured. However, when Joan of Arc arrived, accompanied by a small army, fierce resistance spread among the French ranks and forced the English to retreat in just nine days.

"WHEN JOAN OF ARC ARRIVED, ACCOMPANIED BY A SMALL ARMY, FIERCE RESISTANCE SPREAD AMONG THE FRENCH RANKS AND FORCED THE ENGLISH TO RETREAT IN JUST NINE DAYS"



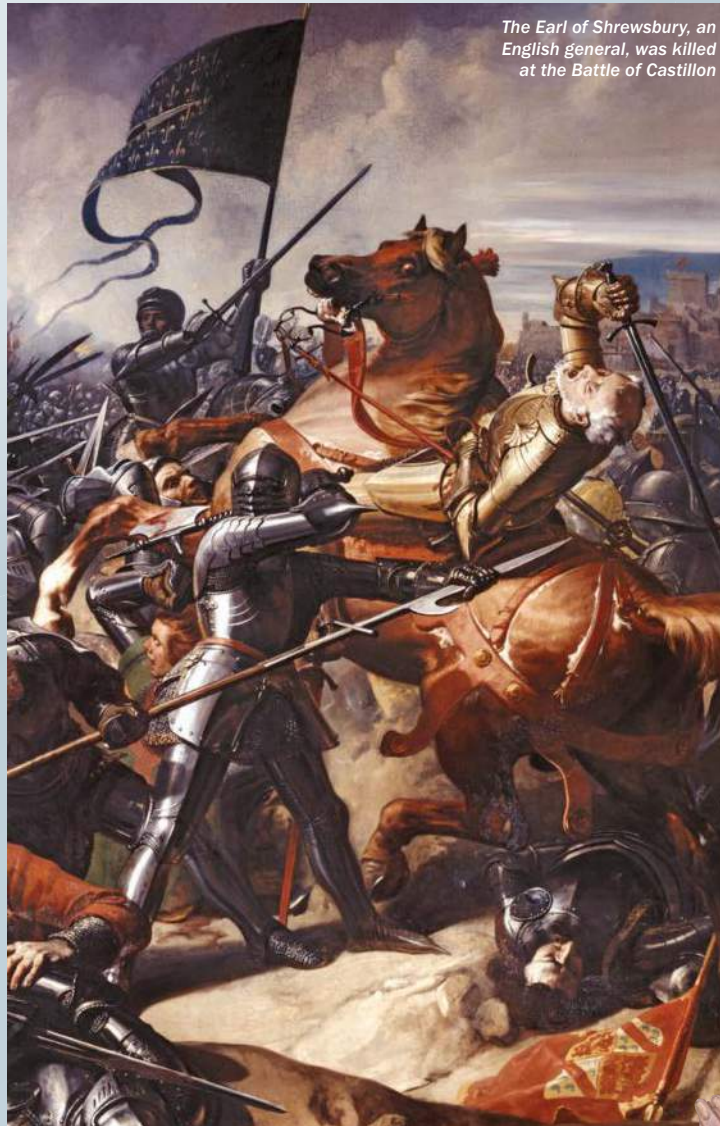
The Siege of Orléans was Joan of Arc's first major military victory

BATTLE OF CASTILLON

THE FINAL CLASH

1453 Castillon-la-Bataille, Gascony

Although the French had captured Bordeaux from the English, the inhabitants, having been ruled by the English for 300 years, were not happy, and demanded Henry VI's help. The region was reclaimed and Henry slowly captured more and more of Gascony. The two forces eventually met, but the English miscalculated the strength and size of the French army and were destroyed by their artillery. The defeat led England to lose almost all its land in France, and marked the end of the long and bloody conflict.



The Earl of Shrewsbury, an English general, was killed at the Battle of Castillon

5 Facts about THE HUNDRED YEARS' WAR

THE HUNDRED YEARS MYTH

To call the Hundred Years' War a single war is incorrect. There were periods of peace between the conflicts, and many historians disagree about when it truly began and ended. What is certain is that it lasted longer than 100 years.

THE GREATEST WEAPON

Rather than facing the French in open conflict, Edward the Black Prince preferred to lead raids known as chevauchées. These horse charges would plunder cities, burn crops and cause as much destruction as possible.

JOAN THE FEMINIST?

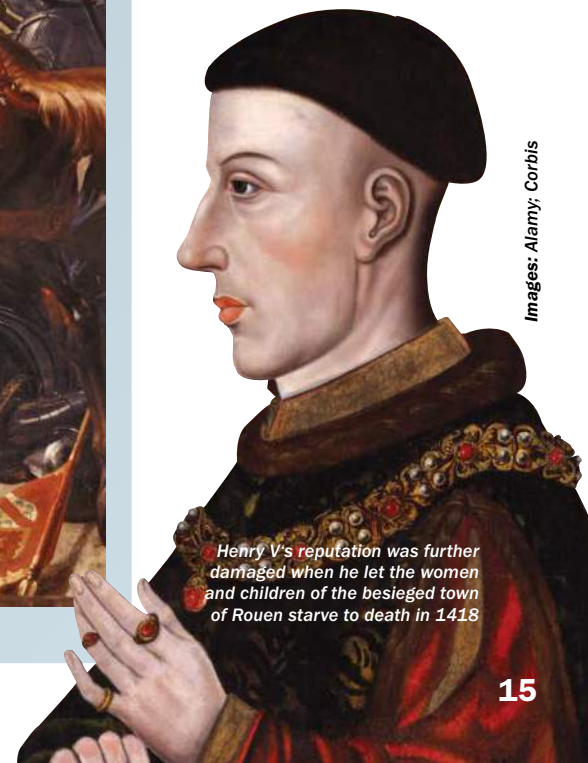
Although Joan of Arc is commonly portrayed as a fiery tomboy, she only wore male clothes when necessary, much preferring to don a dress. She was also known to loathe the female camp followers, and there are even accounts of her chasing some away with a sword.

LONG LIVE THE KING

Edward III was just 14 when he inherited the English crown in 1327, and reigned until his death in 1377. At 50 years and 147 days, his reign is the sixth longest in English history. Considering he was a Medieval king in a time of conflict, this is an impressive accolade.

THE KING OF FEAR

Although, thanks to Shakespeare, Henry V is seen today as a paragon of English chivalry, he was actually a rather ruthless warrior and leader. At Agincourt, Henry violated the rule of war by ordering the immediate execution of French prisoners.



Henry V's reputation was further damaged when he let the women and children of the besieged town of Rouen starve to death in 1418

Images: Alamy; Corbis

HUNDRED YEARS' WAR HEROES

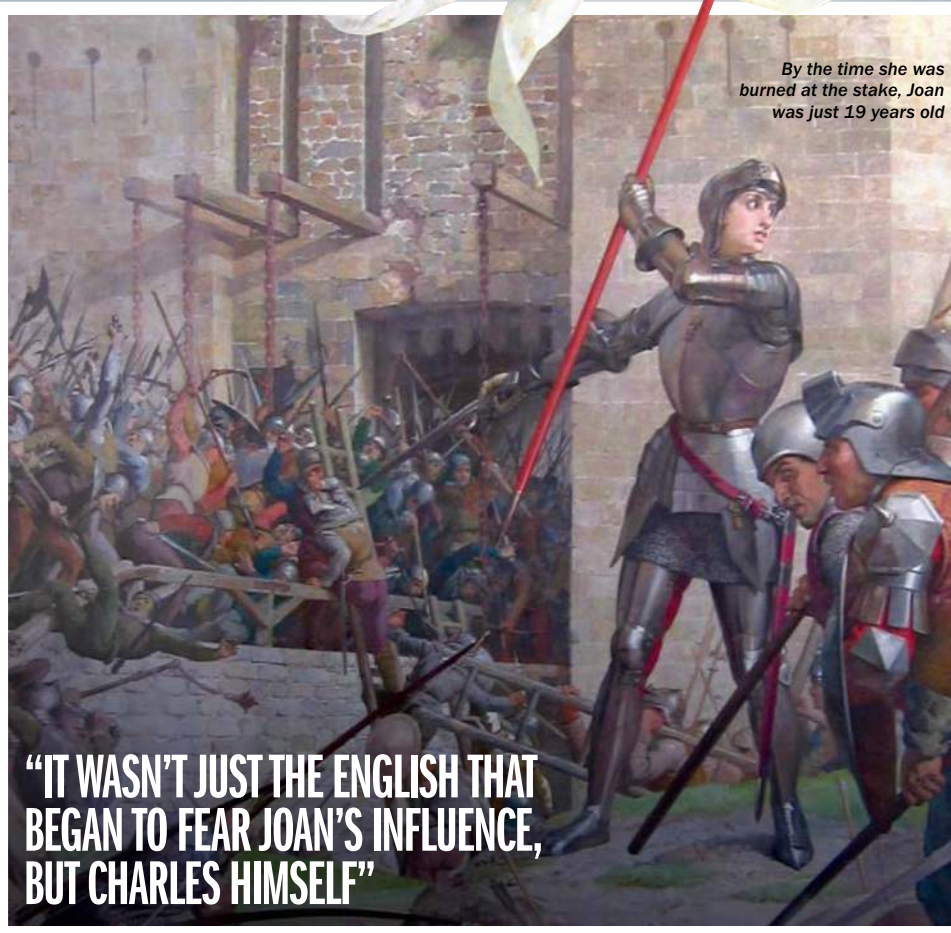
The intelligent strategists and tenacious warriors of over a century of conflict

JOHN CHANDOS 1320-70 ALLEGIANCE: ENGLAND

Gentleman, knight and close friend of kings, John Chandos was highly trained in the art of war, and his military genius aided England greatly. Edward III was impressed by Chandos' military successes and made him responsible for the education of his young son Edward, the Black Prince, appointing him chief of staff. The Black Prince went on to fight by Chandos' side at a number of battles as he played a central role at the battles of Crécy and Poitiers. He is credited with designing a key strategy that ensured victory fell into Edward's lap.

After these two monumental victories, he went on to lead his forces to glory at the Battle of Auray, which allowed John de Montfort to reign as John V, Duke of Brittany. Chandos was highly rewarded for his service and was appointed vice-chamberlain of England and lieutenant of France. Although he repeatedly snatched victory from the jaws of defeat in grand battles, he met his end in a minor skirmish. His death was mourned not only by the English, but by the French too. This was because Chandos was not only a warrior, but a skilled politician, with many believing he was the key to peace.

Below: John Chandos was present at all of Edward's major conflicts, including the three strategic victories at Crécy, Poitiers and Auray



By the time she was burned at the stake, Joan was just 19 years old

"IT WASN'T JUST THE ENGLISH THAT BEGAN TO FEAR JOAN'S INFLUENCE, BUT CHARLES HIMSELF"

JOAN OF ARC 1412-31 ALLEGIANCE: FRANCE

Though she would go on to become a heroine and martyr of France, Joan of Arc came from humble origins. She was born in the tiny village of Domremy, where she lived the quiet life of a farmer's daughter. This all changed when, at the age of 12, she began to experience religious visions of saints and angels that spoke to her. Most significantly, she claimed to speak to the archangel Michael, one of the patron saints of the French Royal Army.

The situation in France at the time was at breaking point – the uncrowned dauphin Charles was losing territory and the English were preparing for a fresh campaign. However, Joan's visions began to speak a direct message: they told her to go to Charles and help him drive out the English. After struggling to persuade the garrison commander of her mission, she finally convinced Robert de Baudricourt to take her to Charles.

Joan impressed the dauphin, who was desperate for any help he could get, heavenly or otherwise. Despite some reservations from his court, Charles granted Joan everything she asked for – armour, a horse and an army. By the time she arrived in the besieged city of Orléans, all eyes were on Joan. Although she never personally took part in the battle, Joan accompanied the troops, holding her banner, and was even wounded by an arrow to the neck. When the siege was over, and the English expelled, she was declared a heroine. Her reputation spread far and wide, and she accompanied Charles on his assaults, helping him to take any towns that resisted.

It wasn't just the English that began to fear Joan's influence, but Charles himself. When she was captured by the Burgundians after defending Compiègne, the French king made no efforts to rescue her. Joan was given to the English, put on trial and found guilty of heresy and cross-dressing. She was burned at the stake. Charles eventually had her name cleared, but only once a cult had begun to arise around the girl who fought and died for France and God.



Another of du Guesclin's nicknames was 'The Black Dog of Brocéliande'

BERTRAND DU GUESCLIN

1320-80
ALLEGIANCE: FRANCE

Known as 'The Eagle of Brittany', Bertrand du Guesclin served as a French military commander during the early part of the Hundred Years' War. From a tough upbringing, du Guesclin was regarded as ugly and small, so he was forced to develop tenacity and fighting spirit that aided him well in later life.

Du Guesclin first made his name while fighting in the Breton War of Succession when the French supported Charles of Blois. He also helped to defend the city of Rennes against a siege by the English. His bravery and military prowess impressed Charles V,

and du Guesclin entered the service of the French king to be. He led Charles's forces to victory at the battle of Cocherel by defeating Charles II of Navarre, who had his sights set on the Duchy of Burgundy. However, at the Battle of Auray, the French were bitterly defeated and du Guesclin captured.

The price that Charles was willing to pay for his safe return – 100,000 francs – indicates just how highly the Eagle was regarded. He was later made Constable of France, unusual for someone as lowborn as du Guesclin. He immediately set about forcing the English back across the sea with victory after victory. Du Guesclin's military genius helped reconquer most of France from the invaders, and today he is one of the most popular figures in the history of the country.

OWAIN LAWGOCH

1330-78
ALLEGIANCE: FRANCE

A figure surrounded by myth and legend, Owain Lawgoch was a Welsh soldier who claimed descent through an ancient line of Welsh princes. Although he is now regarded as a Welsh hero, Lawgoch grew up in England and received military training in France.

In 1369, he was stripped of his lands in England and in retaliation proclaimed himself Prince of Gwynedd. Ambitious and flamboyant, he assembled a team of mercenaries and the French began to take notice of him. Not only had Lawgoch won battles in France and Spain, he also offered the losing country a chance to strike the English on their own soil. Charles V supported Lawgoch's claims and financed a fleet of ships the Welsh rebel planned to use to invade Wales. However, the ships didn't get very far before



Owain Lawgoch translates to 'Owain of the Red Hand'

Charles V called them back and ordered them to attack La Rochelle instead, which Lawgoch did successfully.

By 1377, Lawgoch was planning another invasion of Wales. Although some historians believe that these were simply intended to distract the English, the Crown took them seriously enough to dispatch an assassin to end the Welsh nuisance once and for all. The Scottish assassin, Jon Lamb, successfully infiltrated Lawgoch's band of men and stabbed the would-be king to death, ending the direct line of Welsh princes.

PHILIP THE BOLD

1342-1404
ALLEGIANCE: BURGUNDY

Philip inherited the dukedom of Burgundy at a time when the Burgundian dukes lived in splendour. Philip himself had a good reputation, known as 'the bold' thanks to his brave actions at the battle of Poitiers when he was just 14. He was wounded, captured, and spent most of his late youth in captivity in England, where he played chess with the Black Prince.

When Charles V, Philip's brother, ascended the throne, Philip was confirmed as duke of Burgundy and soon became a favourite of the French people. He was an excellent negotiator and could easily win the favour of many difficult men. When Charles V died in 1380, Philip assisted the young Charles VI in running the country.

As his nephew grew older, however, it became obvious that something wasn't right. He suffered fits of murderous rage and insanity so intense that he even killed his own knights. Philip immediately took control and declared himself regent. Far more capable than his fragile nephew, Philip used his charm and negotiation skills to make an agreement with Richard II of England, and established a truce that lasted for 28 years.

JEAN III DE GRAILLY

UNKNOWN-1376
ALLEGIANCE: ENGLAND



Regarded by his contemporaries as the epitome of chivalry, de Grailly was a military leader who served alongside Edward III and Edward the Black Prince. Made Knight of the Garter in 1348, de Grailly was an expert cavalry leader, and thanks to a flanking move he commanded at Poitiers, King John II was captured.

At this point, de Grailly was regarded very highly in England. However, in 1364 while commanding forces in Normandy, he was captured by Bertrand du Guesclin. He was released within a year, but by then had defected to the French side.

Whether this defection was a ploy or not is up for debate, but he very quickly changed his allegiance back to England. He followed the Black Prince to Spain and fought at the Battle of Nájera, where he faced his old rival, the Eagle of Brittany. This time, de Grailly came out on top, and du Guesclin was captured. However, de Grailly's winning streak came to an end when his men were surprised by a French force at the siege of Soubise in France. De Grailly was captured, and Charles V, perhaps wary of unleashing the man who once double crossed him back to the English, kept him locked up as a prisoner for the remainder of his life.



Philip clashed with his younger nephew, Louis, Duke of Orléans, who believed he should have been regent

THE FIGHT FOR FRANCE

For more than a century of war, the territories of this divided kingdom were the battlefields, as well as the ultimate prize



1 FRENCH COASTAL RAIDS

1338-40

French raids torment the English coast from Southampton to Suffolk until the Battle of Sluys in the summer of 1340, when the English gain full control of the Channel.

Left: The French navy was almost completely destroyed by the English at Sluys

2 THE COMBAT OF THE THIRTY

27 MARCH 1351

The Duchy of Brittany has split allegiances in the Hundred Years' War. The Breton War of Succession would last until 1365 but in this tight skirmish, the French emerge victorious.

Breton War of Succession

Date: 1341-65

Location: Brittany

Battle of La Rochelle

Date: 1372

Location: Coast and port of La Rochelle

CASTILIAN VICTORY

Battle of Formigny

Date: 15 April 1450

Location: Formigny, Normandy

FRENCH VICTORY

Battle of Baugé

Date: 21 March 1421

Location: Baugé

FRENCH VICTORY

Fall of Bordeaux

Date: 19 October 1453

Location: Bordeaux

Battle of Castillon

Date: 17 July 1453

Location: Castillon-la-Bataille, Gascony

FRENCH VICTORY

"SETTING SAIL FROM SOUTHAMPTON, HENRY V AND HIS ARMY PILLAGE AND PLUNDER THEIR WAY THROUGH NORTHERN FRANCE"

3 THE BATTLE OF POITIERS

19 SEPTEMBER 1356

The Battle of Poitiers ends in an emphatic English victory. Although outnumbered, the English archers outclass the French cavalry in a result that becomes commonplace in this era of the war.

The French king, John II, was captured at the Battle of Poitiers





1 Battle of Sluys

Date: 24 June 1340

Location: Sluis, Zeelandic Flanders, Netherlands



2 Battle of Agincourt

Date: 25 October 1415

Location: Azincourt, Pas-de-Calais



3 Battle of Crécy

Date: 26 August 1346

Location: Crécy-en-Ponthieu, Picardy, France



4 Burning of Joan of Arc

Date: 30 May 1431

Location: Rouen

5 English/Burgundian rule of Paris

Date: 1419-36

Location: Paris

6 The Jacquerie

Date: 21 May 1358

Location: Compiègne, Oise, France

7 Battle of Patay

Date: 18 June 1429

Location: Patay, Orléans



8 Siege of Orléans

Date: 12 October 1428 – 8 May 1429

Location: Orléans

9 TREATY OF BRÉTIGNY

1360

The war is punctured by a series of treaties. The first major pact is the 1360 Treaty of Brétigny, which surrenders huge amounts of French lands to the English.

10 DEATH OF THE BLACK PRINCE

8 JUNE 1376

An almost legendary Medieval military hero and tactician, Edward the Black Prince dies of dysentery contracted while in Spain. His series of victories helped make Aquitaine an English powerhouse.

Despite its common usage today, there is no record of Edward being called the Black Prince during his lifetime



11 HENRY V'S INVASION ROUTE

11 AUGUST – 29 OCTOBER 1415

Setting sail from Southampton, Henry V and his army pillage and plunder their way through northern France. Taking a series of French strongholds, the invasion culminates in the Battle of Agincourt.

12 BURGUNDY SWITCHES SIDES

1435

After a long rivalry with the French, the Burgundian kingdom decides to desert the English. The 1435 Treaty of Arras allies France with Burgundy, turning the war further against the English.



Before the battle of Agincourt, Henry V addresses his army from horseback

INSIDE A MEDIEVAL ARMY



Professor of Medieval History Anne Curry explains just what a European army would have looked like 600 years ago

A Medieval army on the march would have reflected both extremes of the social spectrum of the time, with peasants, landowners, knights, noblemen and even royalty fighting together on campaign. The English longbowman, for instance, would have been a commoner, but his importance to the army and effectiveness in battle far outweighed his lowly status back home. He would not have the wealth to buy the best armour, or anything other than crude melee weapons, so his skill with the bow was often his sole asset.

A rich man-at-arms or knight, on the other hand, would bring not only several horses with him to take into battle, but

also a personal squire to assist him in the fray. Regardless, in the chaos of a fight, both these men would be looking to win gold and glory by defeating a rich enemy, who they could then seize and later ransom for profit. The Medieval battlefield, therefore, was a great social leveller in the period.

A highly respected authority on the period, in particular Henry V's campaigns, Professor Anne Curry lectures on military and Medieval history, and is the author of numerous titles including *Great Battles: Agincourt and Agincourt: A New History*. Here she takes us through each of the troop types that would have made up both English and French forces during the Hundred Years' War and beyond.

CROSSBOWMEN

The English Crown employed relatively few crossbowmen, but they could sometimes be found in naval expeditions and also in garrisons. The greatest concentration of crossbowmen was in Calais, which was often an outpost of English control in northern France after its capture by Edward III in 1347.

About 70 per cent of crossbowmen in English service between 1369 and 1453 were from overseas, and they were most often Portuguese, Castilian, Flemish, German or Genoese.

Right: Unlike the longbow, a crossbow could be operated by almost any soldier with very limited training needed



Below: Cannons saw their first real use on European battlefields in the Hundred Years' War

GUNNERS

By the late 14th century, gunpowder artillery was playing an increasing role in warfare. In 1415, about 30 gunners accompanied Henry V's army but all were from the continent (largely Germany). English gunners began to appear in later campaigns, some doubling as archers. Gunners were often craftsmen as well as soldiers, seeing to the construction and repair of their weapons too.

"GUNNERS WERE OFTEN CRAFTSMEN AS WELL AS SOLDIERS"



Although the exact figures cannot be known, it is thought that up to 12,000 French men-at-arms fought at Crécy

KNIGHTS

In the early campaigns, 25 per cent of the men-at-arms were dubbed knights, but as the war continued, the proportion declined. In the army led to France by Richard, Duke of York, in 1441, for instance, only 2.2 per cent of the men-at-arms were knights. Not only had the Crown become more selective in its creation of knights, but also men of potential knightly standing were less keen to follow military careers. In France, too, the proportion of knights in royal armies fell from 15 per cent in 1340 to 9.4 per cent in 1392.

MEN-AT-ARMS

In the late 14th century, half of English armies were made up of men-at-arms, but by 1415, the proportion had fallen to 25 per cent and was even lower by 1453. Nevertheless, well-armoured, well-equipped, professional and experienced men-at-arms remained important in all forms of fighting and were increasingly relied upon for permanent garrison captaincies. The term 'esquire' was commonly used for all men-at-arms in the 14th century, a sign of their social status derived from service.

"EDWARD III IMPOSED A FINE ON ALL ADULT MALES WHO FAILED TO PRACTISE ARCHERY ON SUNDAYS"

Left: The English and Welsh longbowmen helped turn the tide of many battles during the Hundred Years' War

ARCHERS

Longbowmen were always important in English armies, all the more so after Edward III imposed a fine on all adult males who failed to practise archery on Sundays. In the early 15th century, the number and proportion of archers increased, possibly because they were cheap (their wage was half that of the man-at-arms) but also because they were valuable in both offensive and defensive contexts. Some had careers of 20 years or more, especially in the garrisons held by the English in Normandy.

PEERS

Virtually all peers had military careers and provided large numbers of troops for the king on all campaigns. The needs of war also played a role in noble creations and promotions. There were six men elevated to earldoms in 1337 just as the war with France was starting, and the earldom of Shrewsbury was given in 1442 to the famous warrior John, Lord Talbot, who died at the last battle of the war at Castillon in July 1453.

Right: John Talbot was the only Lancastrian Constable of France

ANATOMY OF...

A FRENCH KNIGHT

Armed with a chivalric code, as well as the best weapons and armour, the mounted knight was a near-unstoppable force on the Medieval battlefield

FRENCH KNIGHT

COUNTRY OF ORIGIN: FRANCE

TYPE: HEAVY CAVALRY

ARMOUR: PLATE MAIL

WEAPONS: LANCE, DAGGER, SWORD

GALLOP SPEED: APPROX 48KM/H (30 MPH)

BARDING

As knights were so well protected by their extensive armour, their horses became targets on the field instead. A dismounted French knight was at risk, so armour was developed for their mounts. The barding was extensive, with many different parts including the champron, criniere, croupiere, flanchard and peytral.

LANCE

The lance was the staple weapon of any knight on horseback. They were usually about three metres (ten feet) long and made of wood with a steel tip. The lance wouldn't be thrown, but rather the knights would place the weapon under their arms, then gallop forward against lines of infantry. The French method was to place the lancers in a double line, which was incredibly effective, shattering through lines of infantry with ease.

RONDEL DAGGER

This long and thin dagger would be used to exploit gaps in an enemy's armour when the opportunity arose. It could also be used to pry open a visor, then jabbed into the foe's face to finish them off. Up to 38 centimetres (15 inches) in length, this triangular blade was specially designed to allow for maximum penetration and damage when stabbing an opponent.

HORSE

For most French noblemen, fighting on foot was simply unthinkable, so acquiring the fastest, strongest mount was essential. The English exploited this belief by stealing horses and burning their stables, severely impacting French cavalry training.

THE LAST CHARGE

Up until the Hundred Years' War, heavy cavalry was the most powerful weapon in an army's arsenal; by the end of the war, this was no longer the case. Several advances in weaponry had caused a decline in the use of heavy cavalry and their effectiveness on the field, and with it, the armoured knight. The longbow gave the English a huge advantage, as their arrows could penetrate a knight's plate armour, destroying a heavy cavalry charge before it even reached enemy lines. Other new developments – gunpowder, firearms and cannons – were also increasingly used towards the end of the war. All these new innovations marked the decline of trained heavy cavalry and eventually the demise of the armoured knight in the military.



Left: To combat the French cavalry at the Battle of Crécy, the English also laid traps for the horses

BASCINET

There were a variety of different helmets for knights to wear, but the bascinet was the most common, so much so that 'bascinet' became a byword for 'man-at-arms'. This helmet featured a full visor and a distinctive conical shape. Later versions, known as 'great bascinets', were very cumbersome and impacted badly on the knight's mobility.

GORGET

A gorget was a circular piece of steel designed to be worn around the neck, under the breastplate. Although it provided important protection for the knight's neck, the gorget also supported the weight of the heavy armour. There were cheaper single-plate gorgets, but knights would have worn a gorget with three or four overlapping plates for flexibility.

TABARD

Open at the sides, tabards were worn over armour. They were occasionally plain, but would often have the knight's arms emblazoned upon them. Tabards became more important as the use of plate armour increased and shields declined, as they provided clear identification on the battlefield.

PLATE ARMOUR

Made from tempered steel, a suit of armour would have weighed about 15-25 kilograms (33-55 pounds). Despite the fact that the armour covered the wearer from head to toe, they would still remain surprisingly agile. The armour provided near invulnerability to sword slashes, and also gave protection against spears and pikes.

COAT OF ARMS

Knights would have worn their coat of arms on their surcoat or tabard, and their shield if they had one. This wasn't simply for show, as with a helmet covering their face, knights were unrecognisable on the battlefield; the symbols would provide a means of recognition. It is believed that use of these symbols in battle is what encouraged the spread of heraldry across Medieval Europe.

SWORD

Although the advances in armour made swords for knights on horseback somewhat obsolete in lieu of other weapons, they would still carry a sword for close-quarters combat. Swords could vary hugely in length and breadth, from broad single-handed swords about 0.7 metres (2.5 feet) in length to long and thin two-handed weapons up to 1.06 metres (3.5 feet) long.

CUIRASS

GAUNTLETS

ORNATE GIRDLE

CUISSES

POLEYN

SABATON

BATTLE OF BAUGÉ

21 MARCH
1421

The English aura of invincibility was finally lost as a reckless advance saw their forces obliterated by a French and Scottish coalition

Nearly six years had passed since Agincourt and Henry V was still the master of northern France. The dauphin, the future Charles VII, desperately appealed to the Scots for help, and soldiers arrived shortly after, ready for battle against the English. By March 1421, Henry was back in England, so the heir to the throne, Thomas of Clarence, led the army in his stead. Utilising chevauchée raiding tactics, Clarence swept inland, plundering his way through the countryside. Meeting little to no resistance, it wasn't until the end of the month that the French would finally muster a force to fight back.

"UTILISING CHEVAUCHÉE RAIDING TACTICS, CLARENCE SWEEPED INLAND, PLUNDERING HIS WAY THROUGH THE COUNTRYSIDE"

1. FAILED RECONNAISSANCE

The English army marches inland from the coast, conquering Maine and settling in the castle of Beaufort. French scouts track the English advance but are captured and interrogated. Now Clarence knows for sure that a rival army is close by.

2. FRENCH AND SCOTTISH MOVEMENTS

The Franco-Scot forces march west from Tours and cut off the English escape route north that leads to the safety of Normandy. The two armies are now only 12.9 kilometres (eight miles) apart.

3. CLARENCE'S HURRIED MARCH

Eager to engage the French, Clarence and 1,500 men-at-arms dash towards the French camp after sightings are confirmed by the English forward foraging parties. As second in command, the Earl of Salisbury Thomas Montgau is told to assemble archers and then follow his superior into battle.

4. CROSSING THE RIVER

The French and Scottish forces congregate on the other side of the river Couesnon. The only bridge is heavily garrisoned, so the English knights dismount and wade across the river in full armour. Outflanked, the French and Scots retreat into a church.

5. ATTACK ON THE CHURCH

Bursting out from the river bank, the English men-at-arms assault the church. The river crossing leaves the English troops scattered and disorganised and very few troops are now under effective command, as many are still on the road behind.

6. CLARENCE PASSES ON

A lull in the fighting gives Clarence the opportunity to wait for reinforcements. Foolishly, he declines and advances towards the village of Baugé. Hidden over the ridge lies the main force of Franco-Scots, who vastly outnumber the English.

7. THE FINAL CHARGE

The Scottish and French forces are now back in line, but once again ignoring the advice of his commanders, Clarence presses on. A charge up the hill to the waiting Franco-Scots is ordered despite Salisbury and the archers still not arriving.

8. MELEE AND ENGLISH DEFEAT

After a desperate assault, the English are routed by the larger French and Scottish army as Clarence and all of his commanders are killed. Without the support of the longbowmen, the English lose more than a thousand men, while the French and Scottish casualties only number in the hundreds.

9. SALISBURY'S LATE ARRIVAL

The French and Scottish leave the battlefield, along with the mountain of English bodies behind to rot. Salisbury arrives the next day with reinforcements but he is too late to even glimpse the opposing army, and to his horror, finds only the dead.

10. MOMENTUM WITH THE FRENCH

Clarence's body is recovered and shipped back to England, where an angered Henry V prepares to return to France with a new army. After the battle, and with the confidence of their victory, the French begin planning a conquest of Normandy.

THE SCOTTISH ROLE IN THE HUNDRED YEARS' WAR

ENGLAND WASN'T THE ONLY POWER FROM ACROSS THE CHANNEL FIGHTING IN FRANCE. SCOTLAND WANTED A PIECE OF THE ACTION AS WELL

The Battle of Baugé was the zenith of Scottish support in France in the Hundred Years' War. The Scots had been at war on and off with the English for decades and had actively assisted the French since 1382, when they were asked to join with Charles VI in return for equipment and supplies. The French had supported Scotland during Edward I's invasion of the country, so both had a history of common interest. The agreement was known as the 'Auld Alliance' and was a constant thorn in the side of the English, as the French and Scots tried to force a war on two fronts.

The Truce of Leulinghem was signed with the English in 1389, but it wasn't long until the Scots were back in the fold. After Baugé, the Scots were involved in the losses at the battles of Cravant and Herrings and their role in the war was effectively at an end after a major defeat at the battle of Verneuil. Taking place 80 kilometres (50 miles) west of Paris, the Franco-Scots' charge was decimated by the English longbowmen, who killed half of the opposing forces.



At the Battle of Homildon Hill, in 1402, a 10,000-strong Scottish army harassed the English, but suffered a heavy defeat



The Hundred Years' War marked the first widespread use of cannon in European sieges and the richer the noble, the more firepower he could command



THE CHAOTIC WORLD OF FRENCH POLITICS

Senior lecturer in War Studies at King's College London, Dr Jan Willem Honig explains how France evolved from divided kingdoms into one united nation

WHAT WAS THE STATE OF FRANCE PRIOR TO THE START OF THE WAR?

The French kingdom was the most pre-eminent realm in Europe at the time. It controlled the largest territory, it was the wealthiest and it was also the home of chivalry. If you compare it to the other political entities in Europe, it was in a much better position than the weak Holy Roman Empire, a divided Italy or the backwater that was Spain. In England, the king was powerful, but in terms of size and resources, the country was far weaker.

HOW DID THE FRENCH KINGS PERSUADE DIFFERENT REGIONS TO FIGHT FOR THEM?

What you have to remember is that there was a very different political culture to the ones we are familiar with today. Nationalism was not a powerful idea at this time – political culture was dominated by a patchwork of personal relationships between king and nobility. What the kings of France did, and had been doing over the centuries before the Hundred Years' War, was to reinforce and tighten these relationships with the nobles that lived in the areas around Paris, before extending their web of allegiance further and further afield.

The kings of England tried to do the same to maintain their claims to territories in France, so they began to compete. In addition to

the greater wealth and size of his realm, the king of France had a further geographical advantage over the king of England as he was much more at the centre of things in Paris.

WHY WAS BRITTANY SPLIT IN ITS ALLEGIANCES?

Brittany was a constitutional peculiarity in the French kingdom. It was far more independent than the other areas of France and the claims to the duchy were more disputed than any other part of France. The kings of England tried to exploit this conflict between the duke of Brittany and of France, but they didn't have any claims of their own to the duchy.

HOW DID THE LIKES OF ARAGON AND GENOA AND OTHER DISTANT PRINCIPALITIES GET INVOLVED IN THE WAR?

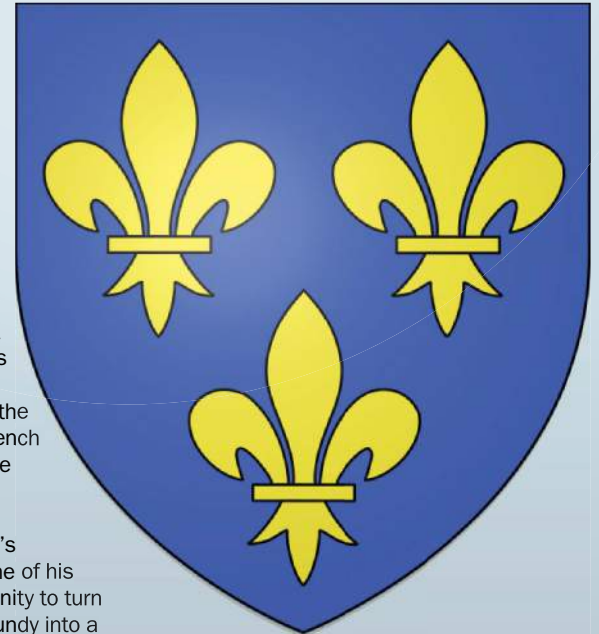
The Hundred Years' War was a major conflict between two major kingdoms of Europe. It created an unrelenting demand for manpower and other military resources such as ships from Genoa.

To feed this demand, mercenary forces grew in popularity and specialist forces were drawn from further afield. Many principalities were also drawn into alliances with the antagonists, like Aragon with England and Castile with France. When the war in France went through a quiet spell, soldiers moved from the French theatre to other wars, like in Spain.

WHAT WAS BURGUNDY'S ROLE IN THE WAR?

Burgundy is a fascinating example of the opportunities that arise

Right: The coat of arms for the French House of Valois, a dynasty whose history was interwoven with English monarchs



when kings are at war. It is a territory that has a long history of almost mythical proportions. But it really came into its own as a powerful entity because of the divisions in the French royal dynasty in the latter part of the 14th century.

The French king's weakness gave one of his uncles an opportunity to turn his Duchy of Burgundy into a powerhouse. Typically for Medieval politics, the dukes of Burgundy shifted alliances, so they were aligned with France at some points and England at others. During the reign of Henry V, Burgundy sided with the English, and this was critical to England maintaining and expanding its presence in France.

DID THE WAR END ENGLAND'S IMPERIAL AMBITIONS ON THE CONTINENT?

It didn't. If you look at Henry VIII, for example, he fought to reclaim the lost possessions in France but had little success. Invading France slowly lost its lure, and expeditions became more difficult once Calais was finally lost in 1558, but the claims persisted until the Treaty of Amiens with Napoleon in 1802.

WHAT WAS THE STATE OF THE FRENCH KINGDOM AFTER THE WAR?

The argument by many historians is that the Hundred Years' War helped the foundation of a strong French state and an absolute monarchy that peaked under Louis XIV.

One of the key developments was in the army. The French kings, who relied traditionally on undependable military service given out by the nobles, now created an army that was much more under their control. It had a permanent core and was paid regularly.

Despite the storm of the religious and civil wars of the 16th century, which almost brought the country to its knees, this structure of a standing army survives and strengthens the monarchy.

Below: Dr Honig's research interests include the strategic relationship between politics and war



“NATIONALISM WAS NOT A POWERFUL IDEA AT THIS TIME – POLITICAL CULTURE WAS DOMINATED BY A PATCHWORK OF PERSONAL RELATIONSHIPS BETWEEN KING AND NOBILITY”

Left: England managed to hold on to Calais for decades after the war. This map from 1477 illustrates the tiny foothold the country still held on the continent



LEE

WORDS MARC G DESANTIS

America's greatest generals clash in the fierce fight for their country's soul

On 12 April 1861, troops from the seceding state of South Carolina opened fire on Federal government-held Fort Sumter, sparking the American Civil War. Soon, several other Southern states joined South Carolina in secession, seeking to preserve the institution of slavery by withdrawing from the Union and forming the Confederate States of America. Abraham Lincoln, 16th president of the United States of America, was resolved to bring the wayward states back, even by force. In the enormous struggle that ensued, the largest and deadliest ever to be waged on American soil, Union and Confederate armies would be led by two extraordinary soldiers, Ulysses S Grant and Robert E Lee, who in their origins and personalities could not have been more different from each other, except for their ferocious dedication to victory.

Born in January 1807 in Virginia, Robert E Lee was the son of Henry 'Light Horse Harry', a cavalry commander from the colony of Virginia who had achieved renown in the American War of Independence. Military service was part of the heritage of the Lee family, and the young man was admitted to United States Military Academy at West Point as part of the class of 1829. Lee seemed destined for great things, and played a role in one of the more notable episodes of the immediate pre-civil war era.

In October 1859, John Brown, a fanatical abolitionist, and 21 of his followers had seized the Federal arsenal at Harpers Ferry, Virginia. His plan was to give the firearms within to

**“It is well that
war is so terrible,
otherwise we
should grow too
fond of it”**

**Lee to General Longstreet at
the Battle of Fredericksburg,
11 December 1862**

S GRANT

slaves and foment an insurrection. This plot failed when a group of US Marines, under the command of US Army Lieutenant Colonel Lee, appeared on the scene and quashed the raiders, killing ten and capturing most of the rest, including Brown.

By contrast, Lee's fellow West Point graduate Ulysses S Grant possessed an unexceptional everyman quality. Born in April 1822 to a tanner in Ohio, his lowly origins and reportedly shabby dress belied a careful, analytical mind. Very few would have predicted that the unassuming Grant, who had gone so far as to resign from the army in 1854, and then fail in his civilian business ventures, would one day become the paramount commander of the United States Army.

War comes to America

Grant was eager to rejoin the regular army after the war erupted. Already helping to raise a company of state volunteers in Illinois, he much preferred to be a part of a regular unit, and turned down command of the volunteers when it was offered to him – the low quality of the politicians who tended to grab posts in the volunteer regiments put him off.

On 24 May 1861, he penned a letter to the army requesting reinstatement. Grant would be given a commission in the regular army as a brigadier general, and made commander of the district of south-east Missouri. In February 1861, he scored the first real victory of the

“I do not think there was ever a more wicked war... I thought so at the time... only I had not moral courage enough to resign”

Grant on the Mexican-American War



war for the Union by capturing rebel-held Fort Donelson on the Mississippi in Tennessee.

For his part, Lee was displeased with the Southern move toward secession, which he thought disastrous. He was forced to choose between his cherished Virginia home state and his country. Lee had even been marked out for the command of a Federal army being formed to return the secessionist states back under US control, but he still chose Virginia.

When his state voted to secede, Lee resigned from the US Army, saying that he “could take no part in an invasion of the Southern States.” By then he had served in the army, including his time at West Point, for some 35 years.

General Lee and the Army of Northern Virginia

The South would have to fight an uphill battle, but it was not without advantages. At the start of the war, its soldiers were more motivated and its officer corps displayed far more talent on the battlefield, especially at the First Battle of Bull Run in July 1861, which was an entirely one-sided Southern victory.

The first major battle of the civil war, the First Battle of Bull Run, was a Confederate victory



MEXICAN-AMERICAN WAR

The precursor to civil war allowed Lee and Grant to cut their teeth on the battlefield

The USA's war with Mexico, from 1846-48, had its origins in the question of the annexation of Texas. The state had won its independence from Mexico in April 1836 at the Battle of San Jacinto, in which Sam Houston and 800 Texans defeated a Mexican army under President Antonio Lopez de Santa Anna. Texas wanted to be admitted into the United States, and US President James K Polk was a firm believer in the USA's 'manifest destiny' to increase its territory from the Atlantic to the Pacific. He strongly favoured the annexation of Texas, and this was accomplished in 1845 by a resolution of Congress. But Mexico had other ideas, and had never truly reconciled itself to the loss of what it considered rightfully to be one of its own provinces. In April 1846, Mexico declared war on the USA after an American army commanded by General Zachary Taylor crossed the Texas border. The US Congress declared war on Mexico that May, but many anti-slavery elements in the North saw it as a naked attempt to win more slave territory.

Taylor moved south rapidly, and won a succession of victories over tough Mexican opposition at Palo Alto, Resaca de la Palma and Monterrey that year. In February 1847, a strong Mexican army under Santa Anna was defeated by Taylor at the Battle of Buena Vista. Also in 1847, US forces under General Winfield Scott captured the port of Veracruz, and marched inland to Mexico City, which they reached in August 1847. Along the way, Scott met and defeated Santa Anna at Cerro Gordo that April, with victory owed in no small part to the reconnaissance performed by Captain Robert E

Lee, who discovered a route around the Mexican rear. Scott was effusive in his praise of Lee, calling him “the very best officer that I ever saw in the field.” Ulysses S Grant, in the meantime, had been a supply officer with Taylor at the war's start, and then had accompanied Scott in his assault on Mexico City, where he fought bravely in taking enemy breastworks guarding the city. By September 1847, Mexico City had fallen to Scott, and the war was ended by the Treaty of Guadalupe-Hidalgo in February 1848, which saw the US take half of Mexico's territory.

“Many anti-slavery elements in the North saw it as a naked attempt to win more slave territory”



After the storming of Chapultepec, Mexico City was occupied by American forces

AT WEST POINT

The USA's top military academy schooled men in the art of war

The United States Military Academy was established at West Point, New York, by President Thomas Jefferson to provide the young nation with professional officers educated in the military sciences. From then until the outbreak of civil war, West Point produced many of the USA's most illustrious soldiers.

While at West Point, an institution with notably strict discipline, Lee managed to graduate without even one demerit for an infraction of its disciplinary code during his four years there, a rarity among cadets. He graduated in second place in his class, and this enabled him to obtain a commission in the army's much sought-after Corps of Engineers. After exemplary service in Mexico, which garnered him no fewer than three brevet promotions in 1847, Lee would busy himself constructing fortifications. But Lee's military reputation was so high that he was brought back by the academy in 1852 to become its superintendent. Lee would bring his wife, Mary Anna Randolph Custis Lee, along with their seven children, to the Point when he took up his duties there.

Grant's time at the Point was a different matter entirely. He was never confident of his chances of making it through the academy's gruelling curriculum, but went anyway because he thought it would give him a chance to travel and see the USA's biggest cities, which then were New York and Philadelphia. "A military life had no charms for me, and I had not the faintest idea of staying in the army if I should be graduated, which I did not expect," he said.

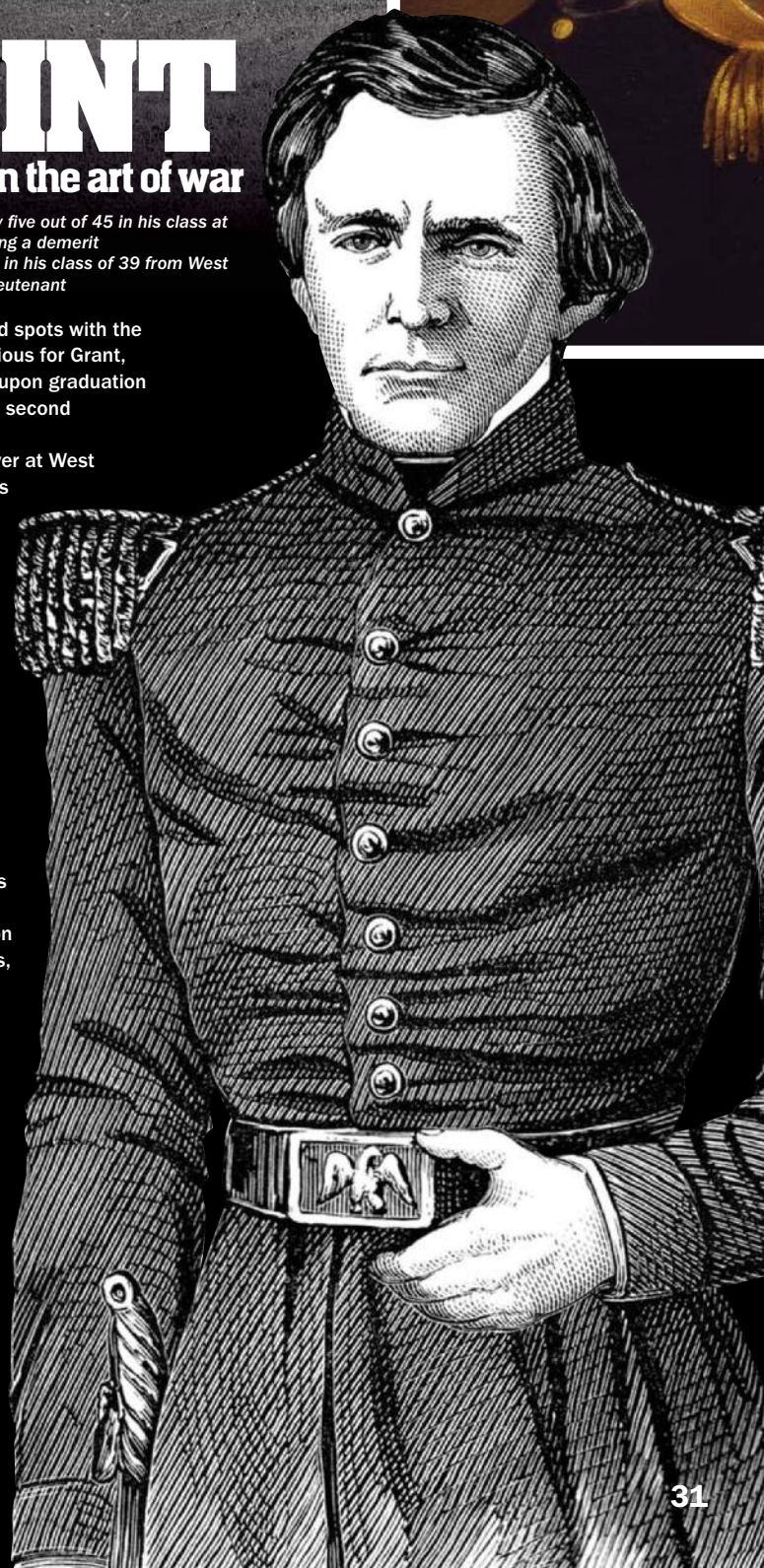
As a member of the class of 1843, Grant was an undistinguished student, and he wasted a good deal of his time reading novels instead of studying. His best subject, horsemanship, was not academic

Far right: Robert E Lee was one of only five out of 45 in his class at West Point to graduate without receiving a demerit

Right: Ulysses S Grant graduated 21st in his class of 39 from West Point with the rank of brevet second lieutenant

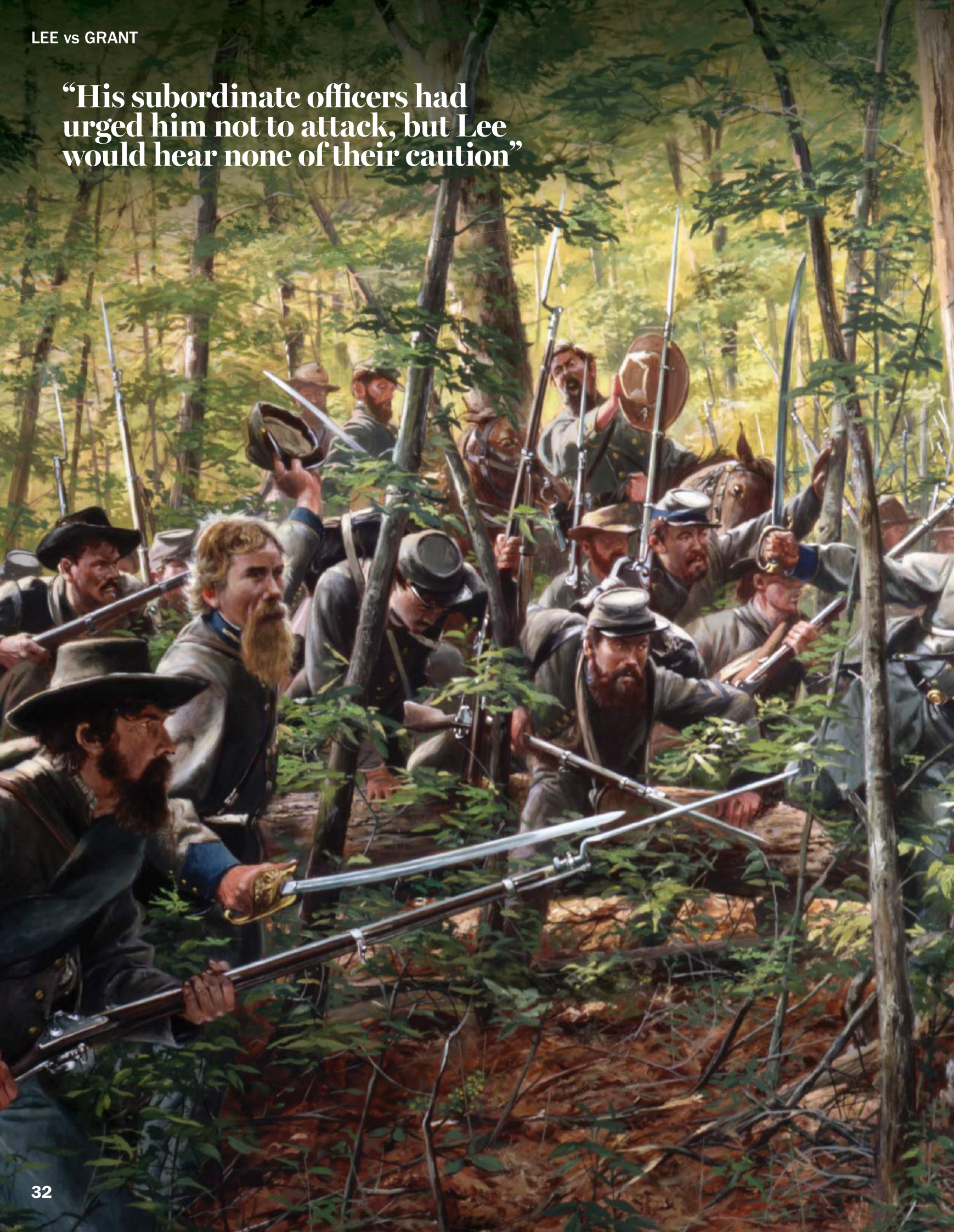
at all. Obtaining one of the coveted spots with the Corps of Engineers was too ambitious for Grant, with his mediocre grades, and so upon graduation he was commissioned as a brevet second lieutenant of the infantry.

Though Lee and Grant were never at West Point at the same time, their paths would cross in Mexico, albeit not on the battlefield. On one occasion, an unkempt and dust-covered Brevet Captain Grant went to General Winfield Scott's headquarters to make his report. His appearance was so poor that he was scolded by one of Scott's staff officers, none other than Lee. "I feel it is my duty, captain," Lee said, "to call your attention to General Scott's order that an officer reporting to headquarters should be in full uniform." Though this was perhaps not the warmest of encounters between two men who would go on to hold such important commands, it highlights one of the central tragedies spawned by Southern secession. Graduates of West Point, many of whom had served side by side during the Mexican-American War, would find themselves fighting against one another in the civil war.



“Though Lee and Grant were never at West Point at the same time, their paths would cross in Mexico”

“His subordinate officers had urged him not to attack, but Lee would hear none of their caution”





At the Battle of Chancellorsville, Confederate infantry of Dole's Georgia Brigade advance on Union General Hooker's flank

Not least among these officers was Lee himself, who had been serving as Confederate President Jefferson Davis's military adviser since early 1862. His future opponent commanding the Army of the Potomac, Major General George B McClellan, was an able trainer of soldiers but was also extremely cautious and lacked vigour in the field. Davis placed Lee in command of the Army of Northern Virginia on 1 June 1862, after its previous commander, General Joseph Johnston, had been wounded in battle.

Few appointments to command have been of more importance. Though greatly outnumbered by McClellan, Lee attacked him again and again, and in what became known as the Seven Days Battles in June-July 1862, drove the larger Army of the Potomac away from the Confederate capital of Richmond, Virginia. At the Second Battle of Bull Run on 30 August, he

hurled the Union Army of Virginia under General John Pope back towards Washington.

Lee next took the Army of Northern Virginia into Union territory. On 17 September, he fought McClellan to a standstill at Antietam, Maryland, where both sides took horrendous casualties in the civil war's bloodiest single day. President Lincoln became so disgusted with McClellan's dithering failure to pursue Lee after the battle that he removed him from command in November 1862 and replaced him with Major General Ambrose Burnside.

Lee retreated back to Virginia, but though he had badly bloodied the Federals, Lincoln also got something he had long been waiting for: Antietam had been a victory, at least of a sort, and Lincoln issued the Emancipation Proclamation, which declared that all slaves in rebel territory were now free. Though real freedom for the slaves of the South would

be a long time in coming, the president had reframed the conflict into one in which the Union now had moral superiority over the slaveholding states of the rebellious Confederacy.

It helped Lee that his opponents were not of his calibre. He humiliated Burnside at Fredericksburg on 13 December, and then devastated Hooker's gigantic army at Chancellorsville in May 1863. However, his valiant soldiers of the Army of Northern Virginia were also suffering heavy casualties. This was a consequence of Lee's offensive spirit, always seeking to attack, but it cost his army dearly. While it would be far wrong to call Lee a butcher, the Army of Northern Virginia took more than 10,000 casualties at Antietam, 5,300 casualties at Fredericksburg, and more than 13,000 casualties at Chancellorsville – losses it could ill afford.

Lee at Gettysburg

While Lee's tactical acumen and battlefield sangfroid have been rightly praised, his strategic vision has occasioned a more nuanced view, and even brought him criticism.

“In Grant, Lincoln had finally found a general he could rely upon”

LEE AND GRANT'S KEY BATTLES

As the conflict raged on, the generals traded victories in spectacular style

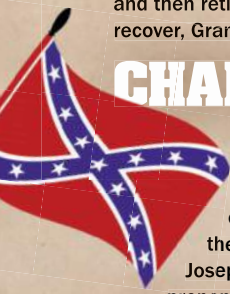
The generalship of Lee and Grant featured detailed planning as well as an ability to react to unforeseen opportunities on the battlefield. Both were forceful commanders who were unafraid to take heavy casualties to win battles. Grant was often called a 'butcher' because of the costly battles that he fought, but unlike many other Union generals, he was never afraid to give battle. Whereas most Federal commanders would fight and then retire some distance to let their soldiers recover, Grant would not retreat, but keep on

attacking. In battle, Grant was always able to remain calm, and this reassured his officers. "The chief characteristic in your nature," William T Sherman wrote to him, "is the simple faith in success you have always manifested... you go into battle without hesitation... no doubts, no reserve... this made us act with confidence."

If anything, Lee was even more aggressive than Grant, perhaps because with his small army he could not afford to rely upon superior numbers or attrition to win a battle. Also, at least in the early

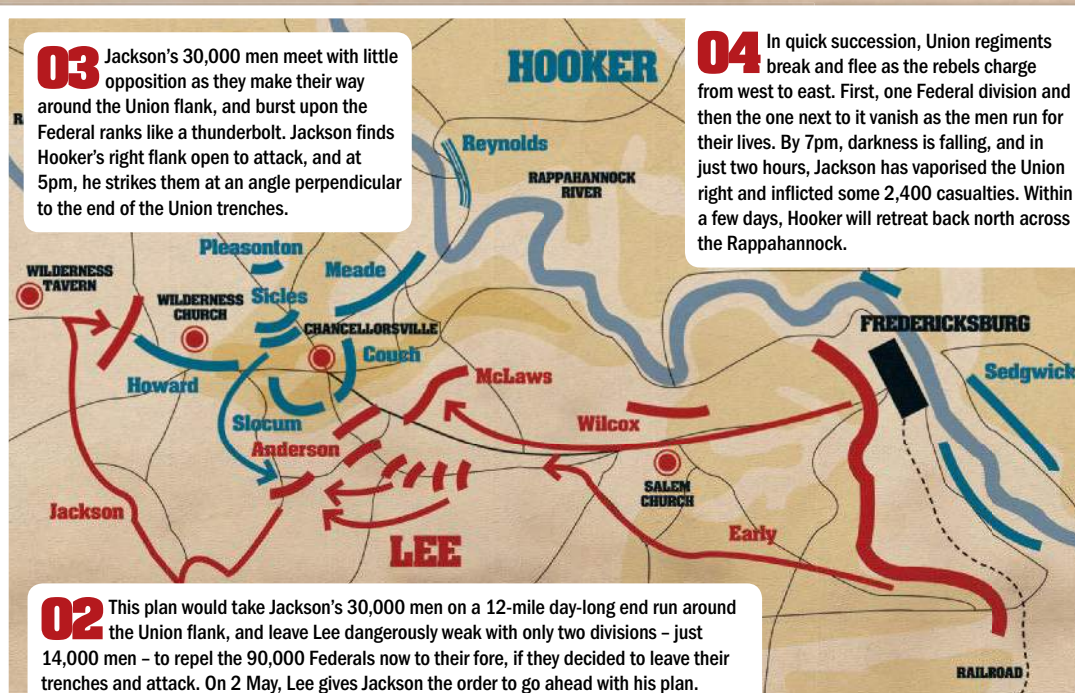
years of the war, Lee had the advantage of generally more capable subordinates, especially Stonewall Jackson. This would have meant nothing, however, had Lee been unwilling to listen to them and accept their advice. It was Jackson who came up with a dangerous yet daring plan to strike a hammer blow against Federal troops at Chancellorsville. Lee let him execute it and the result was devastating to the enemy. But Lee's offensive instinct could hurt his own army too, since even in victory his battles were always bloody affairs for his troops.

CHANCELLORSVILLE: LEE'S MASTERPIECE



The Chancellorsville campaign had begun with much confidence, at least on the part of Union General Joseph Hooker. With a vast preponderance in men and material, in late April 1863 Hooker's Army of the Potomac moved south across the Rappahannock River. Hooker did this to force Lee, who was in an entrenched position along the river just south of Fredericksburg, into the open where the much larger Union army of 120,000 would crush Lee's Army of Northern Virginia, which was just half the size.

01 Instead of attacking Lee, Hooker sets his men to digging in around the town of Chancellorsville. General Jeb Stuart's cavalry brings word to Lee that Hooker's right-wing entrenchments are utterly exposed. Jackson wants to swing around left and crush them by a flank attack that will shatter the vulnerable Yankee line.



Lee tended to fight battles in a very aggressive manner, meaning he often incurred severe casualties even when winning. These were losses that could not be made good with the same speed as the more populous North could with its own.

It was Lee's decision to invade Pennsylvania, a Northern state, that led to the Battle of Gettysburg, in which the Army of Northern Virginia took on a much larger and improved Army of the Potomac. His boldness saw him fight a three-day battle from 1-3 July 1863, in which his troops were ground down by Federal soldiers. The action culminated on 3 July with Pickett's Charge, which failed and resulted only in the destruction of Lee's last fresh division, which took some 7,000 casualties.

"It is all my fault," Lee said to his exhausted troops after the failure of Pickett's Charge. Lee had lost one third of his army of 75,000, some 28,000 men, in just three days. Union



Right: In this painting titled 'First at Vicksburg', the Union 1st Battalion, 13th Infantry, can be seen planting its colours on Confederate positions

THE FALL OF VICKSBURG: GRANT ON THE MISSISSIPPI

In the west in early 1863, Grant, commander of the Army of the Tennessee, had been stymied for months in his attempts to take the city of Vicksburg, Mississippi. It was strongly fortified and commanded the river from atop a

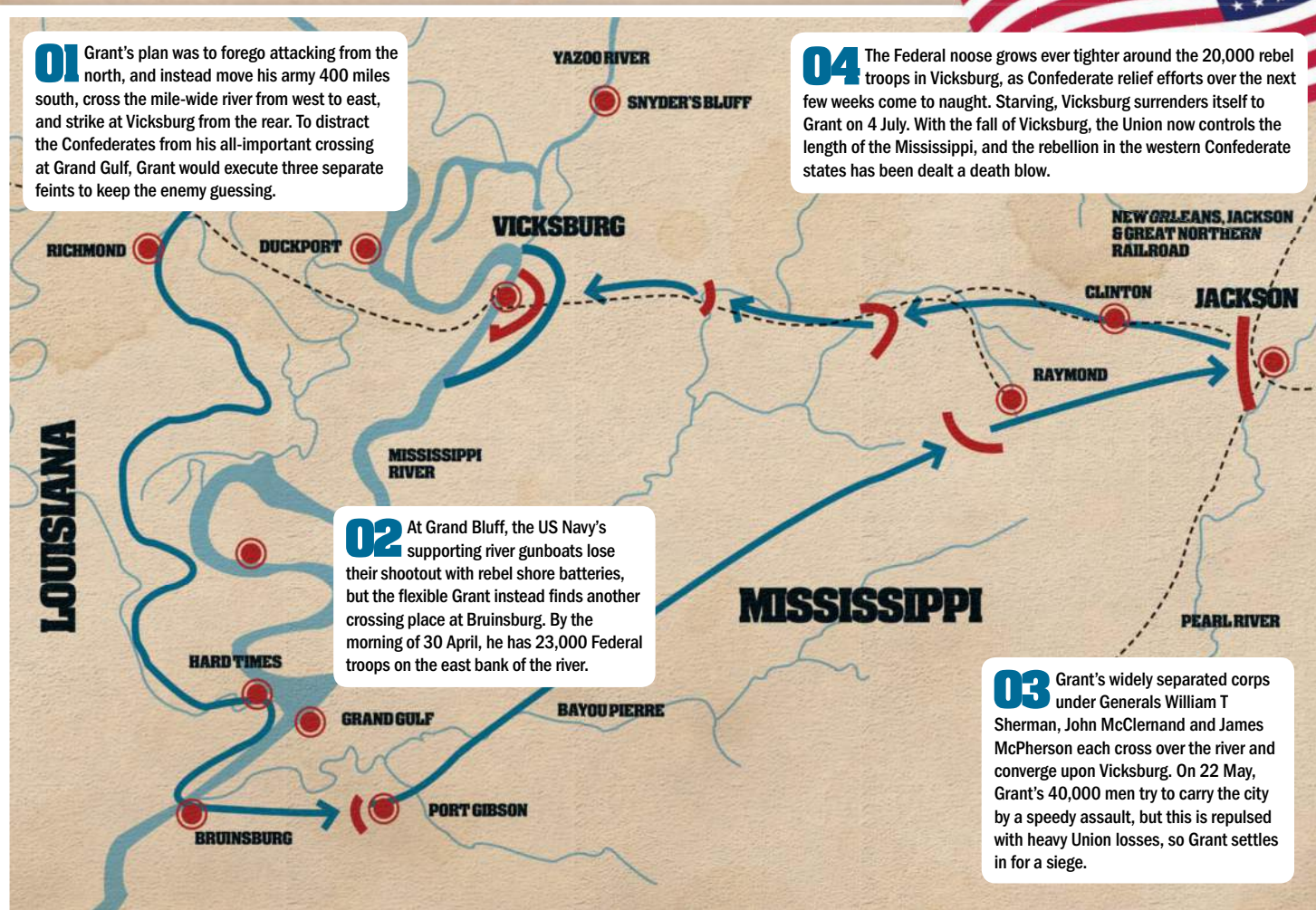
high bluff overlooking the river. Grant would have to get to terrain more suited to offensive operations against the city, but these could only be found to the south and east, on the other side of the Mississippi.

01 Grant's plan was to forego attacking from the north, and instead move his army 400 miles south, cross the mile-wide river from west to east, and strike at Vicksburg from the rear. To distract the Confederates from his all-important crossing at Grand Gulf, Grant would execute three separate feints to keep the enemy guessing.

02 At Grand Bluff, the US Navy's supporting river gunboats lose their shootout with rebel shore batteries, but the flexible Grant instead finds another crossing place at Bruinsburg. By the morning of 30 April, he has 23,000 Federal troops on the east bank of the river.

04 The Federal noose grows ever tighter around the 20,000 rebel troops in Vicksburg, as Confederate relief efforts over the next few weeks come to naught. Starving, Vicksburg surrenders itself to Grant on 4 July. With the fall of Vicksburg, the Union now controls the length of the Mississippi, and the rebellion in the western Confederate states has been dealt a death blow.

03 Grant's widely separated corps under Generals William T. Sherman, John McClelland and James McPherson each cross over the river and converge upon Vicksburg. On 22 May, Grant's 40,000 men try to carry the city by a speedy assault, but this is repulsed with heavy Union losses, so Grant settles in for a siege.



General George G Meade's 90,000-man Army of the Potomac had held better and more defensible terrain from the beginning, and the overly aggressive Lee obliged him by attacking into the teeth of Federal guns. His subordinate officers had urged him not to attack, but Lee would hear none of their caution. "The enemy is there," he said, right before ordering Pickett into the attack on the third day, "and I am going to strike him."

Despite hurling his men at the Federal position, bluecoat losses in the battle were, uncharacteristically, lighter than Lee's, just 25,000. The needless invasion of Pennsylvania had accomplished nothing except the death of thousands of Lee's and Meade's soldiers, and victory for the South was further away than ever. Lee may have missed the assistance of Stonewall Jackson, but had Jackson survived long enough to have taken part at Gettysburg, he was just one man, and he and Lee could not overcome the insuperable advantages held by the North in men and resources.

Grant in command

In Grant, Lincoln had finally found a general he could rely upon to take the fight to the enemy. "I can't spare this man," Lincoln had once said of Grant, "he fights." In March 1864, Grant was promoted to the resuscitated rank of lieutenant general and made commander of all Union armies, comprising some 550,000 men. It was now his mission to take all of the manpower and material advantages that the North had and use them to destroy the Confederacy. He was unafraid to give battle, knowing that the key to victory was defeating Confederate armies, whose losses could not be easily replaced.

"Grant had effectively pinned Lee down, and through constant attrition, the small Confederate Army of Northern Virginia was whittled away"



A President Grant election campaign hat from 1872

TRUSTED LIEUTENANTS

The men who made their leaders great

Both Grant and Lee would have the benefit in wartime of extremely able subordinates. For Grant, this was William Tecumseh Sherman, a fellow classmate at West Point military academy. Like Grant, Sherman had resigned from army service to pursue a civilian career, in banking, with mixed results.

The ill-tempered Sherman's early civil war career was less than splendid. He was aghast at the problems he encountered with inept, ill-trained volunteers and overly inquisitive reporters. The press made him appear to be mentally deranged, and he was relieved of command. He later found himself back in the war leading a division under the overall command of Grant at Shiloh in April 1862. Grant and Sherman would thereafter form a partnership of war and take Vicksburg on the Mississippi the next year.

The bond between Sherman and Grant was unshakable. Forged in the trying times in the beginning of the war that both men experienced, they were the closest of comrades. "He stood by me when I was crazy," Sherman would say in jest, "and I stood by him when he was drunk; and now, sir, we stand by each other always."

Lee was blessed with the aid of Thomas 'Stonewall' Jackson, a general whose military

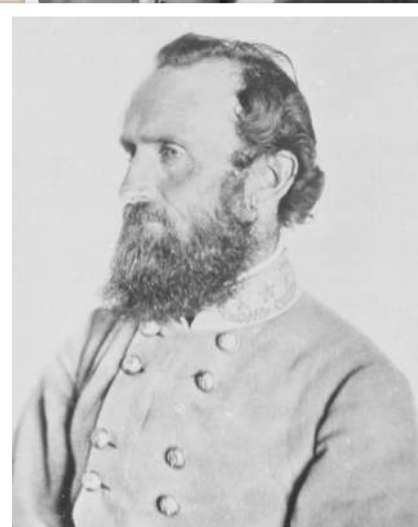
acumen was unsurpassed on either side of the war. Like Lee, Jackson was a Virginian, born in Clarksburg in 1824. His parents died while he was still young, and he was raised by an uncle. The military life appealed to him, and he was admitted to West Point's class of 1846.

He saw service during the Mexican-American War as an artillery officer and his performance was so exemplary that he was rapidly promoted from brevet lieutenant to brevet major. In 1851, he resigned from the army and took a teaching position at the Virginia Military Institute, where he taught philosophy, optics and artillery tactics. He was still teaching there when war came.

Jackson was personally opposed to secession, and though he owned six slaves, was not pro-slavery in any meaningful sense. Nevertheless, he followed his home state of Virginia out of the Union and into war, when it came. Jackson and the First Virginia Brigade he commanded at First Bull Run in July 1861 both earned the moniker 'Stonewall' for their stalwart defence against a furious Federal assault.

Top right: Union General William Sherman succeeded Grant as the Union commander in the western theatre of the war in 1864

Right: Confederate General Stonewall Jackson was responsible for the envelopment of Union forces at the Battle of Chancellorsville



So he would make the rebels bleed, even though it cost his own troops terribly too. The Federal armies under Grant's command took stunningly heavy casualties in the Wilderness, at Spotsylvania Court House, North Anna and Cold Harbor in May-June 1864, but so did the Army of Northern Virginia. The defeat of the Confederacy required the death of its armies, which were still skilled and potent.

Grant's willingness to fight helped him past what might have sunk his hopes of retaining his command early in the war. He had a drinking problem of uncertain severity, with much depending upon the observer. Sherman was well aware of Grant's penchant for alcohol, as were many others, but believed that it did not hinder Grant. Though Grant "would occasionally drink too much," Sherman wrote, "when anything was pending, he was invariably abstinent of drink." President Lincoln is said to have wished to send a barrel of the same whiskey imbibed by Grant to his other generals to get them to fight as hard.

The beginning of the end of the rebellion

In June 1864, Petersburg, Virginia – a vital rail junction through which the bulk of the Confederacy's capital of Richmond's supplies moved – was besieged by Grant. If the city was to be captured, Lee would have to either fight Grant in open country or allow Richmond to fall to Union forces. The Army of the Potomac

THE BALANCE OF POWER, NORTH AND SOUTH

The genius of generals alone wasn't enough for victory

The North had tremendous latent advantages over the South. It had far more people, and thus could both put more soldiers into the field and replace losses more easily. The Union also possessed three times as much railway track as the South. Its industrial development far surpassed that of the South, which had retained a largely agrarian economy. The North could make most of its own muskets and cannons, for example, and could buy arms from Europe to make up any shortfall. The US Navy's naval blockade of Southern ports would choke off almost all Confederate imports except for a handful of blockade runners of negligible significance.

Diplomatically, the support and recognition that the Southern states expected from Europe, especially Britain, never materialised. This was mainly because of the Southern over-estimation of the importance of cotton. Many Southerners had thought that when the supply of cotton from the South was disrupted by war, the shortage would cause the British to bring about a negotiated settlement that resulted in the recognition of the Confederacy's independence. Instead, British importers found other sources for cotton, and the South was left without allies or significant diplomatic support.



Right: The tactically inconclusive Battle of Spotsylvania Court House saw 32,000 Union and Confederate casualties

Below: Men collect the dead after the Battle of Gettysburg



tried and failed to take Petersburg by storm, and then settled down into a formal siege with trenches dug all around it. Though the bloody siege would last for months, Grant had effectively pinned Lee down, and through constant attrition, the small Confederate Army of Northern Virginia was whittled away.

Meanwhile, in the west, Sherman was hard at work driving the rebel army of General Joseph Johnston out of Tennessee and into Georgia, where he took Atlanta. The 62,000-strong Army of the Tennessee then began its great march through Georgia and the Carolinas in the middle of November 1864. Rebel armies could always retreat away from him, and destroying them was next to impossible, so Sherman had to destroy the South's ability, and even willingness, to make war. Having already taken Atlanta, he forgot about his supply lines and started out into untouched Georgia countryside, where his men would live off the land. Along a broad swathe of territory 60 miles wide, bluecoats burned farms and crops, ripped up railway tracks, and caused all sorts of havoc among an outraged but impotent Southern public. Lee, still beset by Grant at Petersburg, could do nothing to help.

After a movement of some 250 miles, Sherman's men arrived at Savannah, on the Atlantic coast, on 21 December. Georgia was a ruin, and out of the war. From Savannah, Sherman's men continued on through the Carolinas, burning as they marched. This was 'total war'. The South could not withstand much more of the same.

“As Lee departed after the proceedings were concluded, Grant and the other Union officers present raised their hats in salute”

Back at Petersburg, the siege ground on, consuming more and more men like coals in a furnace. By early April 1865, Lee's position in the city was untenable, and on 1 April, he withdrew his troops, and warned the Confederate government in Richmond that he could no longer protect the capital. On 2 April, Grant mounted an attack on the weakened rebel defence works, and his 60,000 men rolled over the mere 20,000 left behind by Lee. Petersburg fell that same day, and Richmond was in Grant's hands by the next. The matter of most importance to Grant now was defeating Lee's Army of Northern Virginia, which was in the open and vulnerable. Lee understood better than anyone else just how badly his ill-fed and poorly clad men had suffered, and that his army was surrounded by Union troops. The end of the Army of Northern Virginia was at hand.

Appomattox Court House

On 9 April 1865, after an exchange of messages, Grant and Lee met at the McLean house in Appomattox Court House to formalise the surrender of the Army of Northern Virginia. In a grand irony, Major Wilmer McLean's farm

in Manassas had been fought over at the war's beginning back in April 1861 during the First Battle of Bull Run. The major had taken his family to Appomattox, where he thought they could avoid rest of the war. Now, in April 1865, it was ending in his home. Arriving first, Lee, perfectly attired, as was his custom, rode up on his horse, Traveller, to the McLean house where he would meet Grant. Arriving afterwards, Grant, by contrast, was dressed very simply, and was not even wearing a sword. Sat in the parlour, they talked a bit about their experiences in Mexico, decades before, and then at Lee's prompting, got down to business.

Grant's terms were that Lee's surrendered officers and men should be released on parole, never to fight again until exchanged (which would never happen as the war was over) and that the rebels' weapons would be turned over to Federal forces. Lee agreed, and their terms were put in writing. As Lee departed after the proceedings were concluded, Grant and the other Union officers present raised their hats in salute. Lee did likewise, and rode back to his army. Lee's war was over, and soon the civil war would be at an end too.

A Union regimental fife and drum corps



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Great Battles

WORDS JACK GRIFFITHS

AGINCOURT

AFTER A LONG TRUCE, HENRY V'S MEN TOOK UP THEIR LONGBOWS AND SET SAIL FOR FRANCE. THE HUNDRED YEARS' WAR WAS ABOUT TO REIGNITE

PAS-DE-CALAIS, FRANCE, 25 OCTOBER 1415

600th
ANNIVERSARY

By the summer of 1415, France had regained the majority of its land from Edward III's conquests. Aquitaine and Calais were still held by the English, but the cross-channel invaders had been almost completely driven out of Normandy and Flanders. Back in England, Henry V had been sat on the throne for two years. In that time he had become intent on reclaiming vast swathes of France for himself.

Taking his claim from his great-grandfather Edward, Henry initially offered the French 1.6 million Crowns to recognise English rule and ordered payment for the body of French King John II, who was captured at the Battle of Poitiers in 1356. Negotiations of these harsh terms predictably fell through, so Henry turned to military action.

As well as his burning desire for conquest, the warrior king had the ideal conditions for a successful invasion. Despite a recent plot to overthrow his rule, he had noble support, broadly there was domestic peace and, perhaps most importantly, unrest on the continent.

King of France Charles VI was prone to bouts of insanity, and in 1407, his troubled reign had led to the formation of rival factions in the Valois royal family. Louis, the duke of Orléans and brother of the king, had been murdered in Paris by the Burgundians, and civil war wasn't far away. France, after vanquishing the English in 1389, had descended into chaos. Henry was ready to strike.



“AS WELL AS HIS BURNING DESIRE FOR CONQUEST, THE WARRIOR KING HAD THE IDEAL CONDITIONS FOR A SUCCESSFUL INVASION”

THE BATTLE OF AGINCOURT BY GRAHAM TURNER
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Even though the rules of chivalry stated that no battlefield should favour either side, the location of Agincourt clearly held an advantage for the English



The invasion begins

Setting off from Southampton, Henry was convinced that he could unite the thrones of England and France – he fervently believed that English ownership of the French crown was a birthright and God's will. He landed in Normandy on 14 August with 8,000 archers and 2,000 men-at-arms, who were contracted for 12 months' service. On arrival, Henry stepped onto shore first and fell to his knees, praying to God to give him strength against his enemies.

The English army's plan began with a siege of the nearby town of Harfleur, which had been an important centre of operations for raids on the English coast. The invasion started with a stumble. The siege took much longer than expected, and the French commune put up fierce resistance for more than a month. When Harfleur finally surrendered on 22 September, campaigning season was almost over. The plans to take Paris and Bordeaux were put on hold as the English sought to take refuge in Calais for the winter. Leaving their artillery, 1,200 men and most of their baggage train behind as a garrison, they marched 160 kilometres (100 miles) north towards Calais. Before setting off, Henry contacted the governor of Calais, Sir William Bardolph, asking him to safeguard his chosen crossing point of the River Somme, the same point that Edward III had traversed in 1346.

The French had been tracking the English since the fall of Harfleur, and Charles had summoned knights from every part of his kingdom to engage Henry's military. Letters were sent to every noble in the realm as the king amassed a huge army to fight off the invaders. All weapons and cannons were removed from town defence duties

and put into the field of battle. Although he was instrumental in assembling the soldiers, the king would not take to the battlefield, and in his absence, Marshal Boucicault and Constable d'Albret would lead the French forces. The main French army was situated in nearby Rouen, but only watched as Henry marched uncontested towards Calais. His army was so large that no town or village dared oppose him, and he had no need to pillage as almost every town offered food to the king for his soldiers and horses.

D'Albret and his men were intent on engaging the English near to their own strongholds at Abbeville and Amiens. The scene of Edward III's emphatic victory at Crécy was near here, so the French were keen to get revenge on the same piece of land 69 years after their defeat. However, this idea didn't go to plan, and instead the French cut off the English at the Somme.

When Henry made it to the river estuary, there was no sign of Bardolph, and to his surprise, the French had barricaded the main crossing. Henry had to divert to another bridge, stretching both his resources and the resolve of his men. After finally crossing the river, they were met by the French 48 kilometres (30 miles) from Calais. Two days' march from safety and not far from the heavily fortified French town of Hesdin, appeals

OPPOSING FORCES



ENGLISH
LEADER
Henry V
FORCES

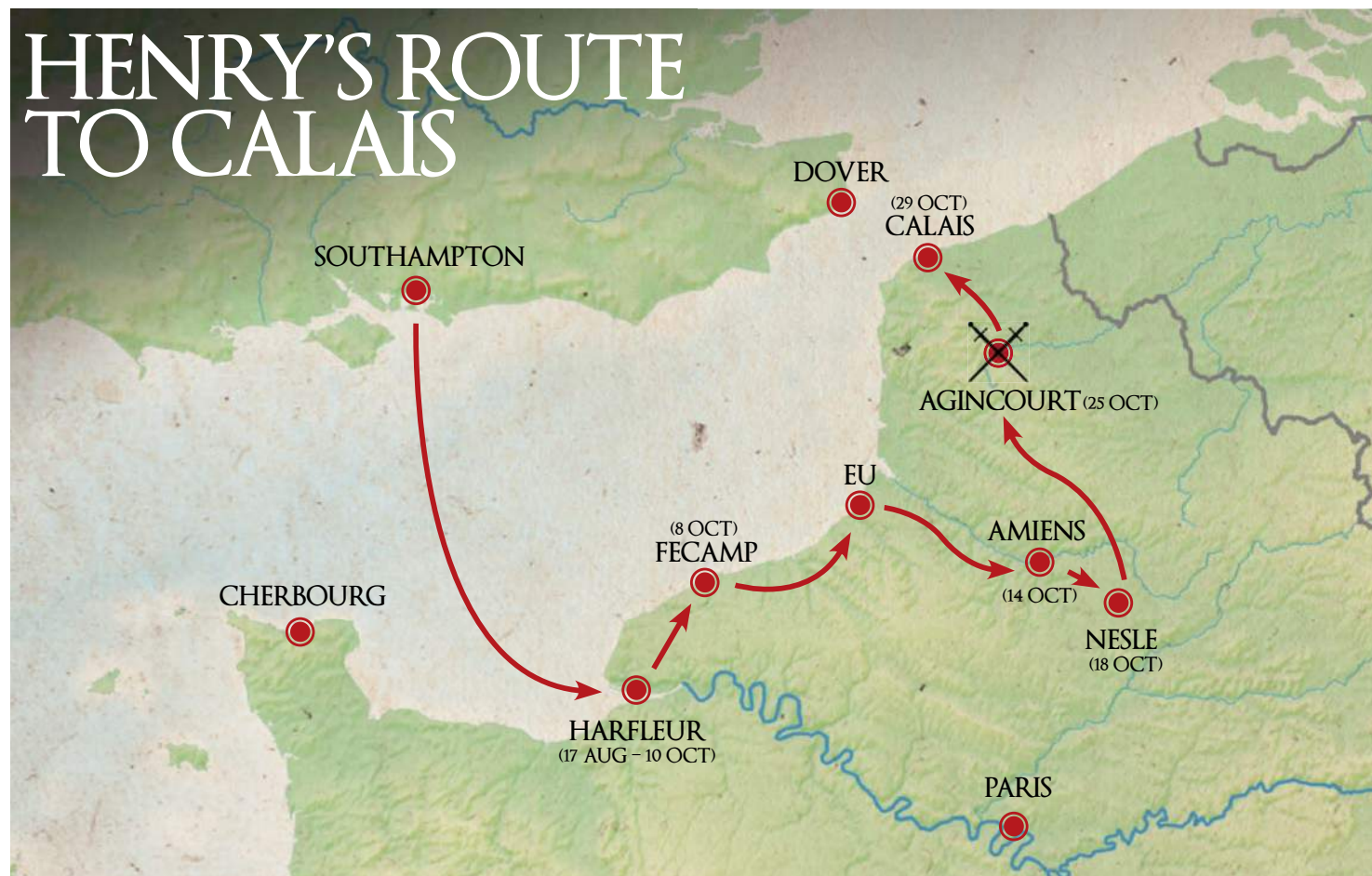
Approximately 500 – 1,000 men-at-arms and 7,000 archers
GAME CHANGERS
The power and fire rate of the English longbow had been upgraded since the days of Crécy and was wielded by skilled English and Welsh archers



FRENCH
LEADER
Charles I of Albret
FORCES

Estimates range from 12-30,000 men-at-arms and knights, accompanied by crossbowmen and artillery
GAME CHANGERS
Overwhelming numbers of men-at-arms and knights could smash the English lines while being protected from arrows by tough plate armour

“ON ARRIVAL, HENRY STEPPED ONTO SHORE FIRST AND FELL TO HIS KNEES, PRAYING TO GOD TO GIVE HIM STRENGTH AGAINST HIS ENEMIES”



for a safe passage to Calais were refused. As the huge French army spilled over the horizon, there was now no way to avoid a pitched battle, and the chosen location was a forest between the villages of Tramecourt and Agincourt.

Amassing on the ridge

The exhausted and disease-ridden English army had marched for 17 days and was in no condition to fight. After having lived off nuts, raw vegetables and contaminated drinking water for days, the morale in the English camp on the eve of the battle was low. In contrast, the French camp was vibrant. New soldiers were arriving by the hour and they stayed up gambling and drinking, certain of victory the next day. So confident were some of the soldiers that they had even fashioned a cart especially for Henry's dead body to ride through the streets of Paris upon victory.

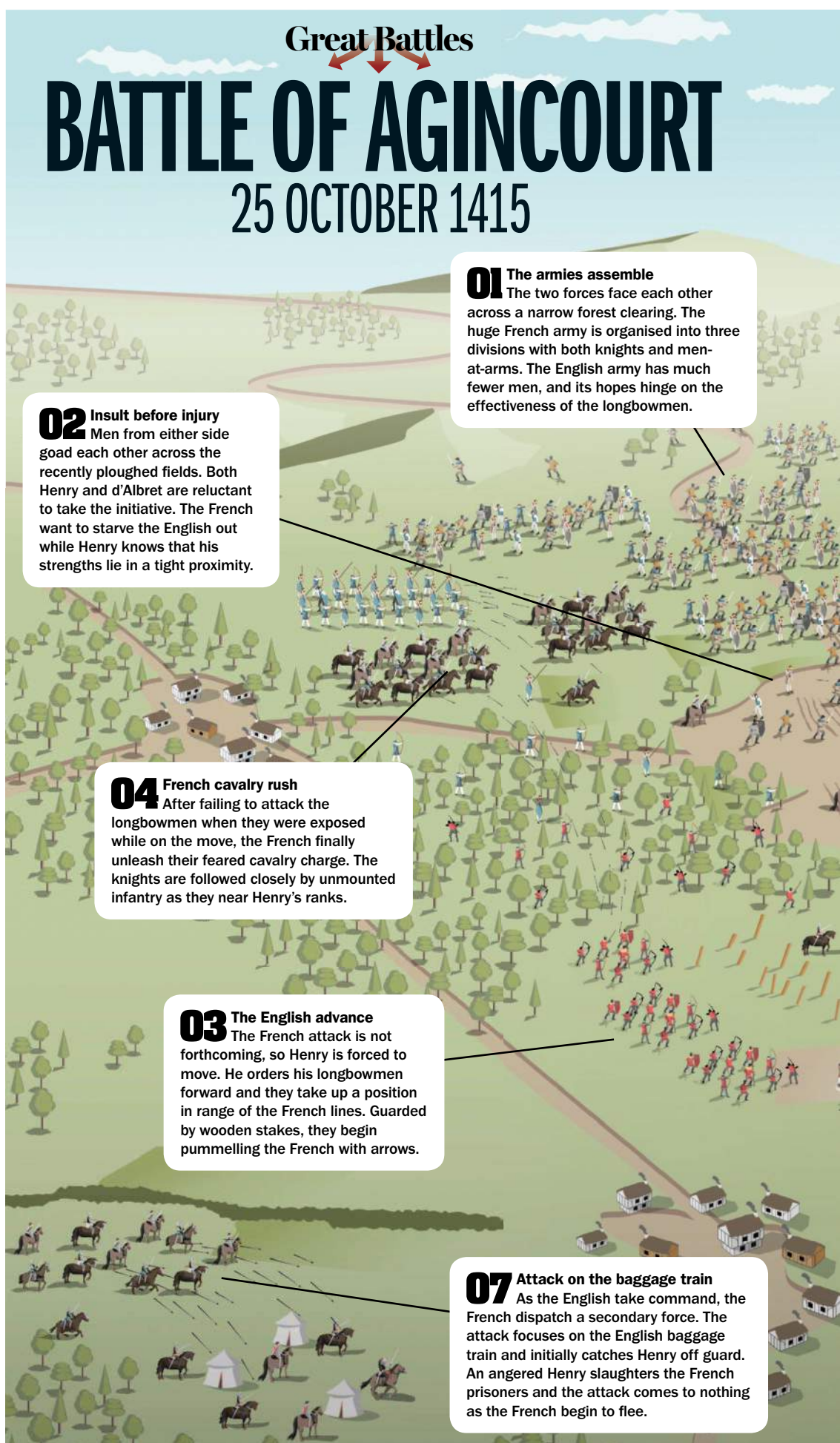
A cold and wet morning broke the next day. Winter was on its way and the freshly ploughed ground below the soldiers' feet resembled a mudpit after heavy overnight rain. The longbowmen took up their positions just before dawn on slight ridges overlooking both sides of the battlefield as well as interspersing themselves in the core of the infantry.

Although this was an English army, many of the longbowmen were Welsh. The longbow was first used in great numbers in Wales and some of the finest archers in the entire army came from there. The archers were joined by 500 men-at-arms who stood nervously in rank and file. Many of them were ordinary men, not seasoned veterans of battle, and they watched on as the French amassed opposite them with about six times as many men in their ranks.

King Henry, in crown and plumed bascinet, constantly encouraged his men and would fight shoulder to shoulder with them as he took charge of the centre, with Sir Thomas Erpingham manning the right and Lord Camoys leading the left. Thick forest enclosed both armies into a confined space of about 900 metres (2,950 feet) wide but the French were sure that there was still room for their cavalry to flank and ultimately encircle the English, striking the deadly archers from all directions. Their army was divided into three lines: the vanguard, the main body and the rearguard. One was mounted and two were on foot, with d'Albret and Boucicault leading the vanguard with the dukes of Bourbon and Orléans.

The French knew the threat the longbowmen posed and had upgraded their armour since the days of Crécy. They now wore thick steel plates

"THE LINES WERE SUCH A MESS THAT FALLEN TROOPS WERE CRUSHED DOWN INTO THE MUD, UNABLE TO RISE UP AGAIN DUE TO EXHAUSTION"



Great Battles

BATTLE OF AGINCOURT

25 OCTOBER 1415

01 The armies assemble
The two forces face each other across a narrow forest clearing. The huge French army is organised into three divisions with both knights and men-at-arms. The English army has much fewer men, and its hopes hinge on the effectiveness of the longbowmen.

02 Insult before injury
Men from either side goad each other across the recently ploughed fields. Both Henry and d'Albret are reluctant to take the initiative. The French want to starve the English out while Henry knows that his strengths lie in a tight proximity.

04 French cavalry rush
After failing to attack the longbowmen when they were exposed while on the move, the French finally unleash their feared cavalry charge. The knights are followed closely by unmounted infantry as they near Henry's ranks.

03 The English advance
The French attack is not forthcoming, so Henry is forced to move. He orders his longbowmen forward and they take up a position in range of the French lines. Guarded by wooden stakes, they begin pummeling the French with arrows.

07 Attack on the baggage train
As the English take command, the French dispatch a secondary force. The attack focuses on the English baggage train and initially catches Henry off guard. An angered Henry slaughters the French prisoners and the attack comes to nothing as the French begin to flee.

08 English victory

Scattered and leaderless, the French army is a spent force. They flee as the English ransack the French camp. Henry claims a victory that reinvigorates the English cause in France. The Lancastrian phase of the war begins.

06 The heat of battle

The crazed horses unsaddle their riders and crash into the French infantry. The English line buckles, but in close quarters, numbers mean nothing. The archers drop their bows and slash at the French with swords and axes.

05 A hail of arrows

The charge is miscalculated and reduces to walking pace as the horses get stuck in the muddy battlefield. They are now sitting ducks for the longbowmen, who fire rapidly at the French as the charge turns into a disorganised frenzy.

THE LONGBOWMAN

DRAWN FROM BOTH ENGLAND AND WALES, LONGBOWMEN WERE THE BACKBONE OF HENRY'S ARMY

ARROWS

Many different types of arrowhead could be used with a longbow. The simplest was the bodkin point, and the majority of arrows could penetrate even the very toughest plate armour.

SECONDARY WEAPONS

When engaged in close-quarters combat, the longbowmen would drop their bows and fight with swords, axes and clubs. This was a last resort as archers worked best at a distance.

Right: Due to their limited armour, longbowmen were often positioned behind barricades or interspersed among troops with superior protection

TRAINING

The longbow would be nothing if it wasn't in the hands of a trained archer. All sports except archery were banned on Sundays and the most talented were drawn into the English Army.

TACTICS

Longbowmen were vulnerable to cavalry so would attack from range and flank the enemy. Each archer carried 60-70 arrows each, enabling up to about six minutes of continuous fire.

THE LONGBOW

Made out of yew, ash, oak or birch, the longbow originated in Wales. By the time of Agincourt, it was one of the most feared weapons on the Medieval battlefield.

ARMOUR

Unlike the men-at-arms, the longbowmen had very little armour except for a boiled leather jacket and occasionally a helmet. The tactics of an archer were based around being nimble and light-footed.

THE AGINCOURT CAROL

Deo gracias anglia
redde pro victoria.

Our kyng went forth to Normandy
Wyth grace and myth of chyvalry
Per God for hym wrouth mervelowsly
Qwerfore ynglond may cal and cry deo gracias.

Deo gracias anglia
redde pro victoria.

He set a sege for sothe to say
To harflu toune wyth ryal a ray
Pat toune he wan and mad a fray
Pat fraunse xal rewe tyl domysday deo gracias.

Deo gracias anglia
redde pro victoria.

Than went hym forth owr kyng comely
In achyncourt feld he fauth manly
Thorw grace of god most mervelowsly
He had both feld and vyctory deo gracias.

Deo gracias anglia
redde pro victoria.

Ther lordys eerlys and baroune
Were slayn and takyn and pat ful soun
And summe were browth in to londoune
Wyth ioye and blysse and greth renoune
deo gracias.

Deo gracias anglia
redde pro victoria.

Almythy god he kepe our kyng
Hys pepyl and al hys weel welyng
And 3eve hem grace withoutyn endyng
Pan may we calle and savelly syng
deo gracias.

Deo gracias anglia
redde pro victoria.

with visor helmets. Each knight had a coat of arms proudly emblazoned on his shield, and the French battle standard, the Oriflamme, flew on flags above them. In response, the English soldiers carried a bow that was much more powerful than the one employed during the conquests of Edward III. Two-handed swords were wielded by the higher classes of infantry on both sides, but the majority carried one-handed swords or lances and even blunt weapons like maces, hammers and clubs.

Henry makes his move

Both sides spat insults at each other, as commanders became reluctant to make the first move. The French were unwilling to advance, as Boucicault in particular knew the English would starve if they went much longer without food. Henry was all too aware of this and finally rolled the dice as he ordered his longbowmen forward.

Kneeling and kissing the ground, the archers advanced until they were about 238 metres (750 feet) from the enemy lines. A trained archer could penetrate armour and kill or wound a target from up to 220 metres (721 feet) away. The French had already made their first error by not attacking the archers when they broke ranks and moved forward. D'Albert and Boucicault were experienced soldiers but lacked the authority and respect that a king like Henry would receive from his men.

“THE LONGBOWMEN IN THE CENTRE HAMMERED STAKES INTO THE GROUND, FORTIFYING THEIR POSITION IN A TACTIC LEARNED FROM PREVIOUS CONFLICTS IN THE WAR”

Unfortunately for the French, their king, Charles VI, was still in Paris, unable to lead his army due to his failing mental health. Back at Agincourt, several units of archers had secretly tracked through the forest surrounding the battlefield and into the nearby village of Tramecourt, creating another angle of attack for the English. Continuing undeterred, the longbowmen in the centre hammered stakes into the ground, fortifying their position in a tactic learned from previous conflicts in the war. At 11am, on the king's order, the archers opened fire. In response, the French cavalry charged, followed by men-at-arms.

The longbowmen first shot galling arrows to purposely wound and disorientate the French ranks before switching to standard bodkin-point arrowheads. The combination of the narrow, muddy battlefield and the severely undermanned charge saw the French knights slaughtered by the hail of English arrows, as their frightened and injured horses became uncontrollable. Any horses

that got even remotely close were impaled on the stakes, and any that turned back crashed into the oncoming men-at-arms, blunting the attack. With the battleground now even more churned up by the horses' hooves, the foot troops moved forward painfully slowly. The area was so narrow that the French crossbowmen and artillery could not support their now-isolated foot soldiers, as a wall of arrows struck the exhausted infantry.

The French attack had just enough momentum to reach the enemy ranks, and at first the English line began to buckle under the strain. Knowing that leaving the narrow battlefield would result in annihilation, the English rallied as the longbowmen dropped their bows and took up swords and axes. The French men-at-arms were protected by thick plate armour, but the nimble archers had purposely shortened their swords and lances, and would slash at any unprotected area, while the huge amount of French troops struggled to swing their powerful broadswords



In the French ranks, nobles jostled for space so they could have their coat of arms displayed at the battle. The result was a chaotic mess

effectively. The lines were such a mess that fallen troops were crushed down into the mud, unable to rise up again due to exhaustion and the 50-kilogram (110-pound) weight of the armour. Any Frenchman who fell drowned in the mud as his fellow soldiers trampled over him.

Within 30 minutes of fighting, two of the three French lines had been completely destroyed. The duke of Alençon lay dead in the mud as did the French commander d'Albret. On the English side, the dukes of York and Suffolk had been killed, but Henry was still alive and so was his brother, the Duke of Gloucester, who Henry had defended valiantly in the heat of battle.

Failed encirclement

Having witnessed the carnage, the decision was made for Isambart d'Agincourt and Robert de Bournonville, men with local knowledge, to target the rear of Henry's army. It was here that French prisoners the English had captured during their invasion were located. A small force of peasant fighters and knights quickly overwhelmed the limited English defenders and plundered the English camp, taking horses and even a royal crown in the process.

Enraged, and also concerned at the possibility of a mass French counterattack, Henry ordered the killing of all his prisoners except only the highest-ranking nobles. The English men-at-arms refused, as this would clash with their chivalric code, so the archers took on the job, killing them in cold blood. There were more prisoners than men in the whole English army, so this knee-jerk reaction was effective in nullifying any possibility of an uprising but severely lessened the opportunities for ransom after the battle.

Below: Unlike many of their counterparts, English men-at-arms and knights fought on foot

Below, right: It is thought that Henry ordered a service of thanksgiving on the battlefield after the English victory

"THE ENGLISH MEN-AT-ARMS REFUSED AS IT CLASHED WITH THEIR CHIVALRIC CODE, SO THE ARCHERS TOOK ON THE JOB, KILLING THEM IN COLD BLOOD"

On the frontline, a 600-man counterattack led by the Counts of Marle and Fauquemberghes had been a disaster. This setback was the final straw, and the remaining French line withdrew. 8,000 French (including one third of the nobility present at the battle) had been killed while the English dead only numbered in the low hundreds. Against all the odds, the English had won the battle.

Aftermath

Ecstatic after their victory, the English broke into song, chanting early versions of the *Agincourt Carol* and other traditional celebratory tunes. The series of French mistakes had proved fatal and the location of the battle had essentially forfeited their numerical advantage. If the full strength of the French cavalry had charged at the English, even the skilled longbowmen, who could fire up to six arrows a minute, and the courage of the men-at-arms wouldn't have been able to hold them off.

Henry's army sacked the French camp and stripped the dead of everything of worth as soldiers fled in all directions. That night, the king held a banquet in nearby Maisoncelles, which was served by captured and now-humiliated French knights. After the emotion of the victory had died down, the weary men were unable to march on Paris, voicing concerns over a lack of siege weapons, and they withdrew back to the safety of Calais on 29 October. Despite the unlikely victory at Agincourt, minimal territory had been gained and Charles VI was still in power, but the

French military had been broken on the field.

Harfleur was now an English-controlled town and would be an effective launching pad for Henry's second invasion of Normandy in 1417. Burgundy, meanwhile, still refused to strike a deal with the House of Valois, as the French kingdom's enemies began to stack up.

Despite the gains, Henry sailed back to England after his nobles voiced fears over the possibility of a costly winter campaign. He returned to a hero's welcome, and after a few more years of successful campaigning, would draw up the Treaty of Troyes in 1420, recognising him as regent and heir to the French throne. The failures of Agincourt had made the French hesitant to fight pitched battles, which contributed to English victories at the 1416 Battle of the Seine and the 1418 siege at Rouen.

Henry's French conquests were successful, but the strain on his kingdom's finances was beginning to tell and would eventually signal the beginning of the end for the Lancastrian monarchy in his later years.

The king died in 1422, meaning he never officially became the king of France. After his sudden death, English fortunes on the continent took a turn for the worse, and when the Wars of the Roses broke out in England, the control of France slipped from the new teenage king Henry VI. The famous victory at Agincourt was now in the past and the era of Joan of Arc and the return of French military power was at hand.



ROYAL STRATEGY

DR MATTHEW BENNETT DISCUSSES THE KING'S COMMAND AND THE FRENCH HESITATION

Dr Matthew Bennett recently retired after a full career as senior lecturer at The Royal Military Academy Sandhurst. He is a Medieval military historian and contributed the battle account in the catalogue for the Agincourt 600 exhibition at the Tower of London. His publications include *Agincourt: Triumph Against The Odds* (Osprey, 1991) and several specialist studies of English archery tactics used in the Hundred Years' War.

How did Henry V's campaign plan in 1415 differ from Edward III's Crécy campaign in 1346?

There is no doubt that Henry was inspired by the achievements of his great-grandfather. Edward had invaded Normandy via the Cherbourg peninsula, sacked Caen and advanced to just north of Paris, challenging the French king to battle. He then withdrew northwards to Poitou where he was victorious at Crécy. The following year he besieged the bridgehead port of Calais. In contrast, Henry landed at Harfleur, in the mouth of the River Seine, capturing it after a bitter siege and then marched to Calais.

Was the planned expedition popular at court and among the nobility?

Generally, the war against France, fought in France, was desirable to the military aristocracy because it offered opportunities for glory, plunder and lands. Richard II's unpopular peace policy had been an important factor in Henry Bolingbroke's 1399 usurpation. Young Henry had proved his valour in his first battle at Shrewsbury in 1403, aged only 16, where he was wounded in the face by an arrow. As king, Henry V won support from the nobility, but also the financiers of the City of London, and its lord mayor, Richard Whittington, who recognised a good investment.

How did the long siege of Harfleur affect Henry's objectives and plans?

The 12,000-strong English army landed in mid August and a month-long siege ensued. The garrison was a bare 300 men, but the town of Harfleur was well fortified by walls and 24 towers, together with ditches and a moat on the seaward side. Siege artillery, both gunpowder and traction, pounded the main gate, which was protected by a wooden bulwark. The unsanitary conditions of the siege lines caused an epidemic of dysentery, which killed or incapacitated some 2,000 of the English, including its leaders. When Harfleur finally surrendered on 18 September, it seemed that Henry's plans had suffered a serious check.

What should we make of the story that Henry originally intended to march south to Bordeaux and Guyenne, and what would have happened had he done so?

The English Crown also held lands in Aquitaine, so marching south would have emphasised the link with these ancient possessions. However, it was late in the year for campaigning and it would have required significant logistical support. Known as a *chevauchée*, such expeditions could have a symbolic effect, but in the latter years of Edward III's reign, there had been several disastrous attempts of this nature. The French had learned not to confront English armies, but to harry them and deny them provisions, so the risk for Henry was too great.

Why did Henry march on land to Calais rather than take a safer passage by sea?

This was indeed the question that Henry's chief advisers asked the king! They feared that the English army would be caught 'like sheep in fold' as French forces combined against it. The answer must be that Henry was making a statement about his right to march wherever he wanted in a country he claimed that he had the right to rule. He may also have contemplated winning a decisive action against the French, as Edward had done 69 years earlier.

Were there any skirmishes with the French en route to Agincourt? If so, were any of them significant?

The French, who had not attempted to relieve Harfleur, merely shadowed the English line of march when the army set out. They relied on blocking the bridges and fords of the River Somme. Faced with this obstacle, Henry was forced to lead his men south east, away from the direct route to Calais, and the English supplies soon ran out. He did manage to cross near Péronne, which was a week's march from his destination, but the French still avoided combat.

Left: An English Henry V halfpenny on the front. Henry's campaign put a strain on the finances back in England



Right: Dr Matthew Bennett regularly lectures about Medieval warfare

Did Henry ever consider cutting his losses and turning back? Were there any mutinies or desertions?

The sources do not really provide an answer. In the light of the stunning victory at Agincourt, any dissension may have been written out of the record. The churchman who wrote an eyewitness account of the campaign, *The Deeds Of Henry V*, does admit that the soldiers were often uncertain and frightened. However, the king kept strict discipline, enforcing regulations and hanging pillagers. Also, the risk of leaving the army and being at the mercy of the enraged French peasantry was probably greater than keeping together.

Why were the French, with a much larger army and home advantage, so hesitant to engage the English?

This is the key question. First, French strategy remained non-confrontational. Second, they hoped to wear the English down before challenging battle. Third, it may be that they did not actually have a huge advantage. This is certainly the argument of Professor Anne Curry in her book *Agincourt: A New History*. Her study of the English documentary records indicates that the army may have been 9,000 strong. In contrast, France was in the midst of a civil war, with a mad king and rival Burgundian and Armagnac factions. Their commanders were bitterly divided and it may be that all their forces did not come up to fight. They had a greater number of fully armoured men-at-arms, but their botched battle plan meant that they failed to utilise them effectively.

What sort of condition was the English army in on the eve of Agincourt?

The English set out with a week's rations, but had been on the road for 16 days. They had subsisted on nuts, berries and dirty water. Anne Curry points out that although no source states that they were suffering from diarrhoea, it seems likely. The archers are described as rolling down their hose (leg coverings) to the knee. This strongly suggests that their bowels were running. They may well have been weakened, but they were both desperate and inspired by a charismatic leader, which was enough to win the day.

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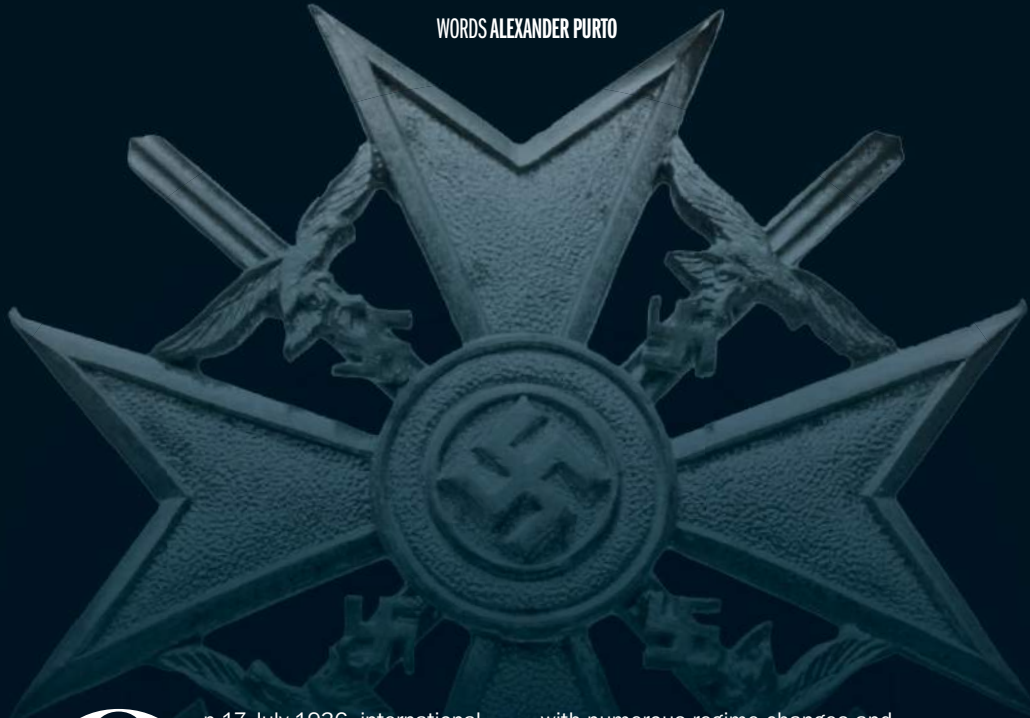
*Soldiers of the Condor
Legion stand in front of
a He 111*



FLIGHT^{OF} HITLER'S CONDOR LEGION

After quietly nurturing the rebirth of the German military through 'civilian' organisations, in 1936 the chance came to test the reformed Wehrmacht

WORDS ALEXANDER PURTO



On 17 July 1936, international attention was drawn to Spain following a swift coup d'état in Spanish Morocco and Spain's Overseas Territories by the conservative, right-wing 'Nationalist' Forces of the military. The 'pronunciamiento' quickly spread across continental Spain, with the rebels seizing Seville and several other small towns in the south and north-west. This finally prompted the democratically elected republican government to distribute arms to sections of its multi-ideological, leftist, civilian population. The harsh polarisation of Spain between a leftist, progressive, socialist republic and a right-wing, conservative, absolutist reaction quickly became representative of European attitudes at the time.

The Europe of the 1930s, despite being exhausted by World War I and the Great Depression, was also ferociously ideological,

with numerous regime changes and experimental politics shaking the continent. Europe was under the 'spectre of communism', and a series of revolutions and leftist violence throughout the continent prompted the rise of nationalist Third-Position politics, such as fascism and Nazism, in countries including Germany, Austria, Italy and Portugal.

In light of this clash of ideologies, the geological position of Spain made it a vital decider of the European conflict in the years to come. The Soviet Union, which had signed a treaty of mutual assistance with France in 1935, sought to establish a 'Red Bastion' in the far west. Conversely, Adolf Hitler saw that the installation of a right-wing government to the south of France would put pressure on the radical left-wing French government and further antagonise the ideological conflict between the communists and 'Croix de Feu' fascists in France at the time.

THE FIGHT FOR SPAIN

17 JULY 1936 SAW THE SPANISH STATE VIOLENTLY FRACTURE IN TWO, AS EUROPEAN HEADS OF STATE WATCHED WITH BAITED BREATH

Spain in the 20th century was a political powder keg. The overthrowing of Queen Isabella II in 1868 and the abdication of a potential successor in 1873 led to the proclamation of the First Spanish Republic. While the First Republic was hampered by instability and soon collapsed in the Bourbon Restoration of 1874, it did enable a whirlwind of new political concepts to take root in Spain.

The Restoration was greeted by an antagonised working class, and the following 53 years of political instability led to fears of a communist revolution against the monarchy, prompting the seizure of state power by the military under Miguel Primo de Rivera in 1923. When support for the new regime yet again dwindled, a Second Republic was proclaimed on 12 April 1931.

The Second Republic did not solve the political strife, but rather emphasised two distinct political factions – a

progressive, left-leaning Popular Front, and a conservative, reactionary 'Confederation'. The next six years were characterised by street violence and discontent with the ever-reshuffling, ever-antagonistic governments. Following the 1936 election and widespread factional violence, the political powder keg finally exploded. The seizure of Spanish Morocco by a conservative, right-wing military on 17 July 1936 jump-started a conflict that would quickly threaten to become an international crisis and one that would demonstrate the ineptness of the Western governments in the face of a pressing Nazi Germany.

Crucially, the war would allow Hitler to distract the world from his Central European plan, seize the resources needed for the future of the German rearmament, test new warfare and innovations and establish a fascist ally to the south of a nervous and divided France.

The Reich to the rescue

It was no surprise, then, that when General Francisco Franco found himself stranded in Morocco with an army comprising 35,000 religious zealots from the Spanish-Moroccan 'Army of Africa' and 30,000 defecting Spanish soldiers, he was quick to look to the Third Reich for help. The Spanish Republic had assembled a naval blockade in the Strait of Gibraltar, and it didn't seem possible to transport such an overwhelming number of military personnel.

Nevertheless, by 26 July, just six days after General Franco's initial request for aid in the transport of his army to the Iberian Peninsula, nine German Junkers Ju 52 transport aircraft landed in Tetouan, Morocco. An additional 11 Ju 52s were bundled into a support package of 86 'volunteer' military personnel, 16 experimental aircraft, 30 anti-aircraft guns and 100 tons of military equipment and loaded onto the Usaramo, a German passenger ship bound for the Spanish port town of Cadiz.

This initial package would be the beginnings of what would evolve into the infamous Condor Legion. Its initial days would be shrouded in the mystery of Operation Magic Fire/Guido – an attempt by Hitler to secure his interests in Spain while avoiding the unnecessary antagonism of Western states. The operation was undertaken in the utmost secrecy, with the state-run company Sociedad Hispano-Marroquí de Transportes (HISMA – Spanish Moroccan Transport Company) being established for the sole purpose of providing a civilian facade to the blatantly militaristic airlift operation.

Starting on 28 July, the nine Ju 52s conducted up to five transport flights a day between continental Spain and its Moroccan possession. There was a sense of urgency in the operation, with German pilots transporting up to 40 fully equipped Nationalist troops per journey, a quantity well above the recommended quota of 17 persons.

Despite the operation of the Ju 52s well beyond their functional capacity, there was only one incident resulting in the loss of an aircraft. On 15 August, a cargo-vacant Ju 52 crashed in the municipality of Jerez de la Frontera – the cause was presumed to be severe engine deterioration and failure caused by the continuous operation in the Northern African environment. As such, extensive operation of aircraft in such harsh environments provided the Nazis with useful information that would later be employed during the North African Campaign in World War II.

With the arrival of the Usaramo and its cargo in Cadiz on 6 August 1936, the first reformation of the Nazi operation in Spain began. Initially with the purpose of supplying and training Nationalist troops, the operation underwent a small evolution after it became apparent it would be more effective for the Nazi pilots to conduct sorties, rather than relying on the Spanish

"THIS INITIAL PACKAGE WOULD BE THE BEGINNINGS OF WHAT WOULD EVOLVE INTO THE INFAMOUS CONDOR LEGION"



Unión General de Trabajadores (UGT) propaganda emphasising the supposed foreign origins of the enemy was prevalent on both sides of the conflict



MACHINES OF THE LEGION

NOT ONLY DID THE CONDOR LEGION PROVIDE A PLATFORM FOR THE DEVELOPMENT OF NEW TECHNOLOGY VIA EVALUATION, IT ALSO ALLOWED OLD TECHNOLOGY TO BE IMPLEMENTED IN NEW WAYS

"THE INNOVATIVE, AUTOMATIC PULL-UP DIVE BRAKES ENABLED PILOTS TO DIVE AT TARGETS WITH THE CONFIDENCE THAT THE PLANE WOULD RECOVER, EVEN IF THE PILOT BLACKED OUT"

JUNKERS JU 87 'STUKA'

Faced with the threat of superior Soviet weaponry, the Condor Legion needed to innovate in order to succeed. The answer came in the inverted gull wings and fixed spatted undercarriage of the Model 87, from German manufacturer Junkers Flugzeug und Motorenwerke AG.

Sturdy and accurate, the Ju 87 was soon found to be an effective ground attack aircraft, earning it the name of 'Stuka', from 'Sturzkampfflugzeug', the German word for 'dive bomber'. The innovative, automatic pull-up dive brakes enabled pilots to dive at targets with the confidence that the plane would recover, even if the pilot blacked out.

At the suggestion of an air technician, Wolfram von Richthofen had a propeller-powered siren added to the exterior of the craft. The wailing siren, known as a 'Jericho Trumpet' was a foray into experimental psychological warfare by the Nazis, and would become the defining characteristic of the aircraft.

The Ju 87, while being introduced towards the end of the war in Spain, arrived at a crucial time, and as well being the first aircraft to be utilised in the Knickerbein system, (a system of night-time bombing wherein the aircraft was blindly guided towards the target via radio communication), the Stuka would make its name in Spain. It was an important tool of the Condor Legion in iconic clashes, such as the Battle of Bilbao and the Catalonia Offensive.

Although the Stuka had a maximum bomb load of 500kg, this could only be carried if the gunner vacated his seat

The Ju 52 could be used in transport roles and as a bomber



JUNKERS JU 52 'IRON ANNIE'

The Ju 52 was arguably the most important contribution by the Nazi government to Franco's Nationalist forces. Recognisable by its low, cantilever wing, bulky fuselage and three-engine design, the Ju 52 began its life as a craft typically utilised by commercial airlines. Its triple BMW engines, which could generate about 700 horsepower, and modifiable cargo hold were initially utilised for military purposes in South America.

The 1932 Columbia-Peru War and the 1934 Chaco War saw the aircraft implemented in a supply and evacuation context. Nevertheless, the Luftwaffe was quick to recognise the Ju 52's potential, and in 1934, the first prototype bomber class Ju 52s were produced. In Spain, the Ju 52 was primarily assigned to the role of skirting the Republican blockade and transporting the Nationalist army to continental Spain. Later, many of the remaining Ju 52s would be converted to tactical bombing aircraft, and used in a 'terror bombing' campaign against the Republican civilian population throughout the Spanish countryside, and most notoriously in the bombing of Guernica.

"A 25-GALLON MIXTURE OF GASOLINE, GREASE AND USED ENGINE OIL WAS COMBINED WITH THE FORCE OF TWO 22-POUND EXPLOSIVES IN ORDER TO CREATE AN ANTI-PERSONNEL WEAPON"

trainees, who were severely inexperienced with aircraft and evidently prone to crashing.

The Eiserne Legion (Iron Legion), the predecessor of the Condor Legion, claimed its first victim, a Republican reconnaissance aircraft, at the hands of future ace Johannes Trautloft, on 25 August 1936. Despite the escalation of the role of German units in actual combat, the real change came at the beginning of September. The situation in Spain became 'threateningly red' with the election of Socialist Prime Minister Francisco Largo Caballero on 4 September and the arrival of Soviet advisers and military equipment six days later.

Hitler was worried about the possibility of further Soviet intervention, but also unwilling to commit a large portion of the recovering Wehrmacht to Spain without the possibility of dividends. Following the 1 October assertion of Franco as 'generalissimo', Hitler sought to trade military assistance for resources from the

Spanish mineral sector – such resources being vital to the rearmament of the Wehrmacht and Hitler's long-term goals.

On 2 October, the Rohstoffe-und-Waren-Einkaufsgesellschaft GmbH (ROWAK – Raw Materials and Goods Purchasing Company) was established with a credit of 3 million Reichsmarks and the purpose of buying up a portion of the Spanish mining industry. A month later, on 6 November 1936, 6,500 German volunteers and six bomber squadrons disembarked at Cadiz, and news spread of Germany's involvement in Spain. Such news was all but verified on 19 November, when, in a joint announcement, the Nazi and Italian fascist regimes recognised Franco's government.

The Legion takes flight

The full militarisation of the Condor Legion, including the name change, had, in actuality, began as early as 30 September 1936.

Operation Guido was coming to an end. Having transferred more than 13,500 troops, 127 light armaments and 36 field guns from Morocco to Spain, a number of the surviving Ju 52s were converted into bombers. Although the official operations of the reformed Condor Legion began on 8 November with the beginnings of the Siege of Madrid, there were several sorties beforehand, most notably the experimental direct bombing of civilians in Plaza de Colon, Madrid, on 27 October.

The month-long assault on Madrid that would begin two weeks later would see the arrival of the International Brigades on the Republican side and a three-day bombing campaign against the republican civilian population by the Condor Legion. The battle also saw the loss of air superiority by the Condor Legion in the face of a Republican side bolstered by the arrival of squadrons of the technologically superior Soviet Plikarpov I-16 fighter class and Soviet Tupolev ANT-40 bomber class. The siege ended less than a month after it began with the exhaustion of both sides and the establishment of a static front line.

Below: Orders and documents of Staff Sergeant Nicolaus Lechner, with the Tank Badge of the Condor Legion (far left)



Disappointed with the failure of the assault on Madrid, the opening months of 1937 saw the Condor Legion use its political influence to support the introduction of a campaign against the less-fortified areas of the Republican front. Additionally, the arrival of new staff, such as Wolfram von Richthofen as chief of staff, prompted a revising of technology. It was decided the Heinkel He 51 had become obsolete, and by late April a replacement was under way, with the Messerschmitt Bf109 offering a fitting replacement.

This was not an easy task, and it required a significant restructuring of the Legion itself, with fighter groups such as the Jagdgruppe 88 (J/88) experiencing a partial rotation of staff. An influx of new prototype technology was under way, with infamous names, such as the Heinkel He 111, Junkers Ju 87 and the Dornier Do 17, appearing in a military context for the first time. The old aircraft were passed on to the Nationalist Air Force, and with a mutating air force, the Condor Legion joined the War in the North.

The German forces set a precedent of violence for the Biscay Campaign on 31 March, when, to the horror of the Republic and Basque forces, the town of Durango, a defenceless settlement of little military value, was levelled. Less than a month later on 26 April, Guernica, a town housing 10,000 refugees of the War in the North, famously met the same fate.

Both attacks saw the introduction of the new aircraft, but also of 'the little man's bomb-carpet' technique, known contemporarily as 'carpet bombing'. In fact, the War in the North saw the introduction of many such innovations in the use of aircraft.

In addition to the realisation of carpet bombing's effectiveness, the 'Knickerbein' system and 'Devil's Egg' improvements were also trialled. The former was a system of bombing wherein the bombers, providing close air support, would be guided to the target by radio, effectively creating 'airborne artillery', and setting the stage for the infamous Blitzkrieg tactics employed a few years later. The latter was an innovation in incendiary bomb design. A 25-gallon mixture of gasoline, grease and used engine oil was combined with the force of two 22-pound explosives in order to create an anti-personnel weapon that hinged on the mixture's ability to produce a burning, sticky substance upon detonation.

Napalm wouldn't be properly invented and implemented in war until the bombing of Berlin by the US Army Air Force on 6 March 1944. Regardless, the system of bombing developed during the War in the North, as well as the experimental bombs themselves, would later be evaluated and applied to Nazi military strategy. By the end of the Biscay Campaign, the Condor Legion had undergone a metamorphosis.

To the south, the Nationalist line was faltering in the opening stages of the Battle of Brunete, due to an unexpected ambush of the town by the Republican forces on 6 July. The Condor Legion responded immediately with a newly equipped air force. This time, the tables had turned. The Republican Air Force was now under-equipped, and the Condor Legion was quick to assert its dominance in the skies above Brunete.



FIGHTER ACES OF THE LEGION

SOME OF GERMANY'S DEADLIEST ACES MADE THEIR NAMES IN THE BATTLE FOR SPAIN

WOLFRAM VON RICHTHOFEN 'THE TARTAR'

Born into nobility, Richthofen rejected an academic life and began his military career in the German Cavalry in 1913, earning an Iron Cross. In 1918, Wolfram joined the Luftstreitkräfte, the Imperial Air Service of Germany, where he witnessed the death of his cousin Manfred – the legendary 'Red Baron'.

After a brief delve into academia, Richthofen joined the Condor Legion in Spain in 1936. He worked to expand Close Support Doctrine – advocating for co-operation between an equally weighted ground force and air force.

Additionally, he pioneered the 'Air Shuttle' technique, in which the sorties of aircraft would be staggered in order to allow a constant air presence. Last, upon joining the under-equipped Condor Legion, he famously improvised, utilising 88mm anti-aircraft batteries in the place of artillery. The Luftwaffe's Special Purpose Division was constructed with Richthofen's findings in mind.



ADOLF 'DOLFO' GALLAND

Learning to fly in gliders at the age of 16, Galland stood out as raw flying talent, and was asked to join the Condor Legion in 1936. Arriving in Spain on 7 May 1937, Galland's first major engagement was in the Battle of Brunete. From the date of his arrival, Galland was a distinguished member of the Condor Legion and flew 300 missions as a leader.

After becoming one of the men awarded the Spanish Cross in Gold, Galland returned to Germany, where he would go on to participate in the invasion of Poland. He became an established ace of World War II and led the Fighter Pilots' Revolt against Goering.

In his later life he was invited by Juan Perón to train the young Argentinean air force, leaving a tactical legacy that would become ingrained in Argentinean military aviation for years to come.

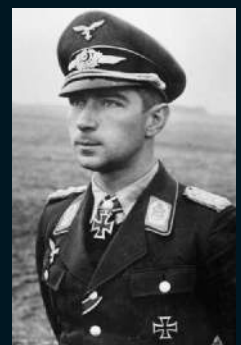


WERNER 'VATI' MÖLDERS

Born in 1913, Mölders was initially declared "unfit for flight" by the Luftwaffe in 1932, due to his severe airsickness. Through willpower, he overcame his ailment and applied once again for the Luftwaffe, this time being accepted and transferred to the Condor Legion, arriving to take over from Adolf Galland on 14 April 1938.

Despite his late arrival, he became the highest scoring ace of the Condor Legion, with 15 kills in the Spanish Civil War alone. He was, like Galland, awarded a Spanish Cross in Gold in recognition of his skill, but also of his combat pioneering.

Mölders introduced the 'Schwarm'/'Finger-Four' formation and the 'Cross Over Turn' to the Luftwaffe – both tactics would prove to be vital in securing Germany's future victories. Mölders died in a civilian aircraft crash in 1941 while attending the funeral of a superior in Crimea.

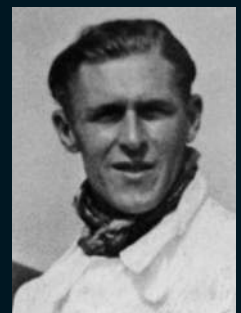


JOHANNES 'HANNES' TRAUTLOFT

Born in 1912, Trautloft joined the covert Deutsche Verkehrsfliegerschule in 1931, and was transferred to the Condor Legion in 1934. He was among the initial six pilots, paired with Heinkel He 51s, to arrive in Spain on 7 August 1936.

As well as claiming the first recorded kill by the Condor Legion, Trautloft developed the theory behind the deployment of the new Bf109. Like Galland and Mölders, Trautloft was awarded the Spanish Cross in Gold with Diamonds.

In World War II, Trautloft famously rescued 160 Allied airmen from Buchenwald Death Camp by transferring them to a prison camp just days before their executions. He later joined the Fighter Pilots' Revolt and, following the end of the war, served in the Bundesluftwaffe – the air force of West Germany, until his death in 1995.



FLIGHT OF HITLER'S CONDOR LEGION

The 19-day battle saw an almost oversaturation of Nationalist aircraft, and it was widely believed that the Battle of Brunete decided the war – a belief that Hermann Goering would utilise in order to gain favourable concessions from the Nazi government in the future. The protection of Nationalist Brunete was a great success, and would be repeated upon the return of the Condor Legion to the War in the North, and the decisive victory at the end of the month-long Battle of Santander.

That said, the overconfident Condor Legion – which was quickly becoming an economic burden for Nazi Germany – would face difficulty in the battles of Teruel and Belchite, but would emerge victorious. Regardless, the issues in Spain were quickly becoming overshadowed by developments in Central Europe, the Anschluss of Austria and annexation of the Sudetenland.

The bombing of Barcelona on 16 March would again see the use of military force against civilian targets, this time with the added innovations of experimental timed explosives and the 'Silent Approach' method. This technique was orchestrated by deactivating the engine in order to glide from a high altitude silently and bomb the desired target, before restarting the engine and climbing once more to a safe altitude. The timed explosive would penetrate much deeper into the buildings or streets before detonating. These were among the last experimental innovations to be implemented during the war, and they wouldn't be seen again until the London Blitz of 1940.



A Stuka dive bombs a Spanish city in 1938

The Battle of Ebro, which began on 25 July 1938 and ran for the greater part of that year, would further transform the Condor Legion and the wider crisis in Spain into a nuisance. The exhausting battle saw staff recalled, reshuffled and redeployed for the last time, with Richthofen once again taking up the position as chief of staff.

The last three months of deployment consisted of a first phase, wherein the Legion conducted a series of sorties against the Republicans in the Nationalist's final offensive. With the Munich Agreement assuring that the Republic would not receive any future aide, the

Wehrmacht high command was satisfied by the establishment of a Spain that was friendly, or at the very least neutral, to the future actions of Nazi Germany. The Condor Legion began its withdrawal in February 1939, with the last troops leaving the Iberian Peninsula by May.

The intervention by Nazi Germany in the Spanish Civil War did pay its dividends. The Nazi regime was able to innovate and invent a new kind of warfare, seize industry vital to the regrowth of the German military, and train the next generation of pilots who would excel in the crucial opening months of the next great war.

THE BOMBING OF GUERNICA



THE MORBIDLY ICONIC BOMBING OF THE BASQUE TOWN OF GUERNICA WOULD BE ONLY TOO TELLING OF THE CHARACTER OF THE NAZIS' 'TOTAL WAR' STRATEGY

26 April 1937 opened as any other Monday would in the Basque town of Guernica. It was market day, so the streets were packed with people from the surrounding region. Despite the civil war that was engulfing the rest of Spain to the south, Guernica saw very little conflict itself. Refugees had sought asylum in the ancient capital, but otherwise, the civil war seemed almost exterior to the town's inhabitants.

What the people of Guernica couldn't possibly anticipate was that their small settlement was positioned in such a way that was strategically important to the Nationalist forces, who were invading the northern provinces. At 4.30pm, the first German aircraft began their descent into the town.

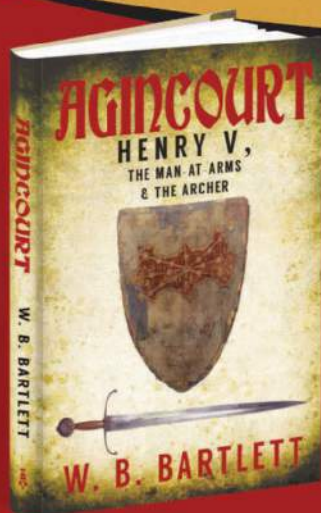
The church bells rang and people ran for the fortifications – built following the bombing of Durango. Five minutes later, the first bomber appeared, dropped its payload and departed. Then came a second – both initial attacks aiming for the centre of the town. Only 15 minutes later, three Junkers Ju 52s arrived and began carpet bombing the city indiscriminately. This was repeated every 20 minutes until 7.45pm with a rotational force utilised. This consisted of squadrons of Junkers Ju 52s for bombing and demolition purposes, and squadrons of recently introduced Bf109 fighter planes, which took up a more anti-personnel role, allegedly attacking civilians and livestock.

The consequential number of casualties is largely disputed, and ranges from as little as 300 to as large as 1,700 civilians. Additionally, as with the bombing of Durango, the Nationalist forces initially blamed communist militants for the destruction of the city – a story that has not stood the test of time, with the modern government of Germany apologising for the actions of its predecessor in 1997. What is not disputed is the fact that the Condor Legion was experimenting with psychological warfare at the time, and that the attack shattered any notion to resist the invading Nationalists, who took control of the city by the end of the month.

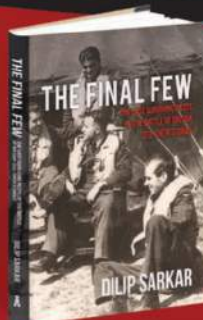
The carpet bombing tactics employed by the Condor Legion absolutely devastated Guernica, proving the tactic to be effective and so worthy for utilisation in the future conflicts of the German state

“THE NATIONALIST FORCES INITIALLY BLAMED COMMUNIST MILITANTS FOR THE DESTRUCTION OF THE CITY – A STORY THAT HAS NOT STOOD THE TEST OF TIME”

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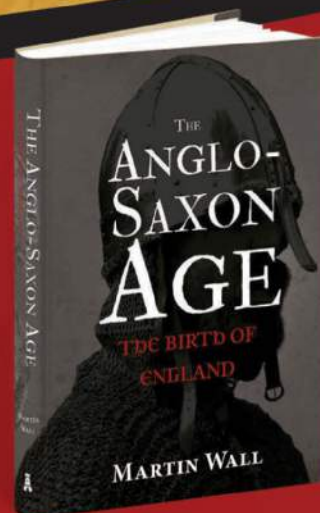
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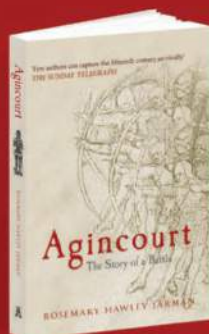
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SUPERCANNONS



WORDS MARWAN KAMEL

OF THE



OTTOMAN EMPIRE

When Mehmet II marched on Constantinople in 1453, he brought with him some of the largest bombards the world had ever seen

The siege of Constantinople marked a significant transition from the Medieval world of swords, catapults and trebuchets to the triumph of the gunpowder empire. As the impenetrable walls of Byzantium were crushed by super-sized cannons, down with them came the might of millennia of the Roman Empire as dust under the feet of the sultans.

When Sultan Mehmet entered the city in 1453, its capture was mourned in the Latin West as a destruction. However, the Ottomans saw themselves not only as heirs to the caliphates, but as the inheritors of Rome.

The Ottomans carried on the cultural legacy of a great empire in the Mediterranean and even continued the tradition of military pomp. More importantly, they carried on the legacy of military might, conquest, and engineering, and nothing is more emblematic of this than Orban's gargantuan supercannon, which helped conquer Constantinople in 1453.

The rise of the Ottomans and the wane of the Byzantine Empire

The Ottoman Empire's origins lie in the slow crumble of the Turkic Seljuq Empire in Anatolia and the northern part of the Near East. The Seljuqs had been under continuous onslaught against forces like the Persian Safavids and the Byzantine Empire from the west. In 1299, a relief force from modern-day Turkmenistan changed the course of the conflict.

The force was led by Osman, whose rise to power had been foreshadowed by a dream in which he saw a moon rise from a holy man's breast and sink into his own.

Then, a tree supposedly rose from the light in his belly and spread its branches across the world.

Osman arrived to a fragmented political patchwork of small, competing warlord states in Anatolia that were only nominally under the control of the central Seljuq state. So, when he came with his 400 horsemen, he seized the opportunity to declare the independence of his own beylik (principality) from the Seljuqs.

The empire gradually expanded from humble beginnings under Osman's heirs and came to encircle Constantinople, which had essentially become an ailing city-state – albeit with much more powerful foreign allies. The Byzantines, however, were on the opposite end of their historical trajectory. While in the 19th century the Ottoman Empire would be referred to as the 'sick man of Europe', in the 15th century, it was the Byzantines who filled this role.

By this time, the empire had barely recovered from a long period of civil war and assaults from external aggressors. After Constantinople was sacked by Crusaders in 1204, the Byzantine Empire split into three successor states: the Empire of Nicaea, the Despotate of Epirus, and the Empire of Trebizond. They became engulfed in an extremely complex civil war in the Balkans, during which the Emperor John VI Kantakouzenos hired Ottoman mercenaries to subdue his rivals.

Unfortunately, what he ended up with was the Ottomans establishing themselves in the Balkans. As they gradually pushed south east, Byzantium found itself sandwiched between Ottoman strongholds. In 1453, Constantinople stood isolated.



“THE OTTOMANS SAW THEMSELVES NOT ONLY AS HEIRS TO THE CALIPHATES, BUT AS THE INHERITORS OF ROME”



A painting of the Fall of Constantinople in the Panorama 1453 History Museum in Istanbul

MEDIEVAL MASTER SMITHS

Until the mid-15th century, gunpowder weapons were largely ineffective and were still in their nascent stage of development. Though they had been used in China for centuries, the majority of siege technology focused on rams, catapult devices and so on. The Islamic empires of the period, which housed some of the most advanced science of the day, were eager adaptors of foreign technological innovations. As they pressed eastwards, they began adopting and expanding upon the devices they encountered through the Mongols and the Chinese – including gunpowder – as well as incorporating European technologies they encountered.

This thalej al-sin or ‘Chinese snow’, as gunpowder was known, would be revolutionary in the history of siege warfare. One of the most prominent early uses was during the Battle of Mohi in 1241, during the Mongol Invasion of Europe – the Mamluks also used it against the Mongols at Ain Jalut in 1260. Gunpowder would be central to the rise of a chain of Middle Eastern empires, but the evolution of massive supercannons was mostly centred around the

“MANY WOULD EXPLODE AS THEIR GUNNERS PACKED THEM WITH HUGE LOADS OF GUNPOWDER”

later Renaissance European micro-kingdoms, which regularly besieged one another.

At first, the goal was to create huge-calibre guns of more than 50 centimetres in diameter that fired large stone projectiles, with the goal of smashing the walls of fortresses. This would be accomplished by welding together a series of longitudinal iron bars, held in place by rings or occasionally bronze casting. The results were often fairly unimpressive: stubby guns or huge, impractical monstrosities. Many would explode as their gunners packed them with huge loads of gunpowder, or otherwise shatter their projectiles on walls rather than penetrate. These guns were extremely expensive and time consuming to produce, so instead European engineers moved away from these supercannons and towards the creation of multiple, cheaper, more-effective and smaller-calibre guns.

In the Middle East, although siege weapons of this type were used, gun technology tended to move more towards individual hand cannons and handguns, rather than huge siege cannons. By the Ottoman period, despite their ineffective, slow-loading handguns, the elite Janissaries were a force to be reckoned with.

Finding his services of little demand in Europe, Hungarian engineer Orban saw opportunities in south-east Europe and the Middle East. So, after attempting to sell his services to the Byzantine emperor in 1452, who couldn't afford his extravagant fees, Orban was hired by the Ottomans.

BORE

The bore was reported to be large enough for a man to enter the barrel on his hands and knees. Shots were almost never an exact fit. To compensate, the gunners would have to wad the gaps with sheepskin, wood or other materials.

HEAVY FIRE

The Basilica cannon measured more than 27 feet in length, with eight-inch thick walls to accommodate its enormous blast. It had a diameter of more than 30 inches and was designed to be loaded with a stone shot weighing more than half a ton.



The Siege of Constantinople as depicted on the exterior fresco of the Moldovita Monastery, Romania

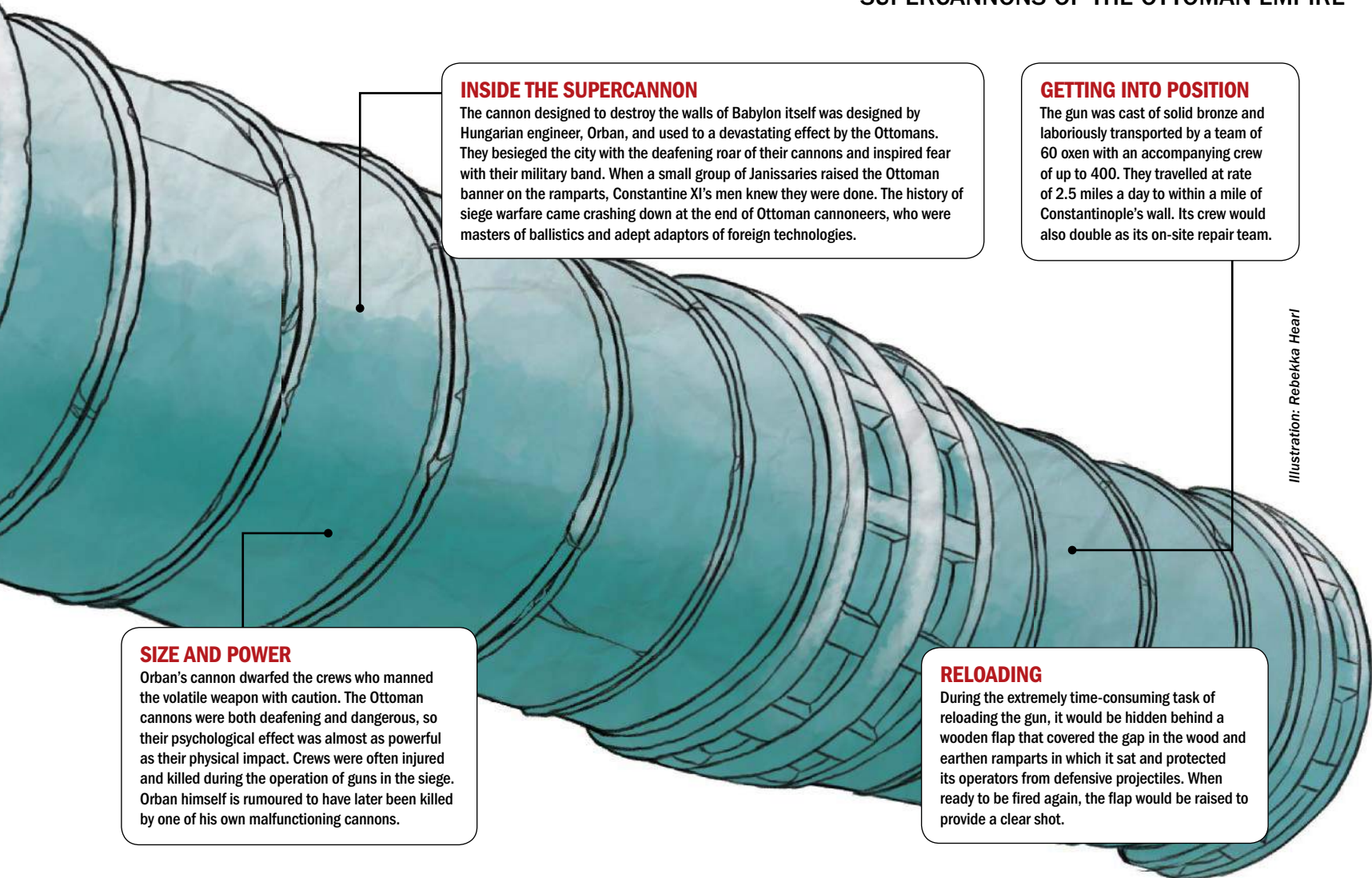


Illustration: Rebekka Hearl

INSIDE THE SUPERCANNON

The cannon designed to destroy the walls of Babylon itself was designed by Hungarian engineer, Orban, and used to a devastating effect by the Ottomans. They besieged the city with the deafening roar of their cannons and inspired fear with their military band. When a small group of Janissaries raised the Ottoman banner on the ramparts, Constantine XI's men knew they were done. The history of siege warfare came crashing down at the end of Ottoman cannoners, who were masters of ballistics and adept adaptors of foreign technologies.

GETTING INTO POSITION

The gun was cast of solid bronze and laboriously transported by a team of 60 oxen with an accompanying crew of up to 400. They travelled at rate of 2.5 miles a day to within a mile of Constantinople's wall. Its crew would also double as its on-site repair team.

SIZE AND POWER

Orban's cannon dwarfed the crews who manned the volatile weapon with caution. The Ottoman cannons were both deafening and dangerous, so their psychological effect was almost as powerful as their physical impact. Crews were often injured and killed during the operation of guns in the siege. Orban himself is rumoured to have later been killed by one of his own malfunctioning cannons.

RELOADING

During the extremely time-consuming task of reloading the gun, it would be hidden behind a wooden flap that covered the gap in the wood and earthen ramparts in which it sat and protected its operators from defensive projectiles. When ready to be fired again, the flap would be raised to provide a clear shot.

THE ORBAN CANNON

The uniqueness of Orban's gun was not in its composition, but its scale. He intended to build the biggest, most powerful gun that had ever been created. When he approached Mehmet II offering his services, the sultan asked if his gun would be powerful enough to penetrate the walls of the city. Orban's response was that he would build something that could "blast the walls of Babylon itself."

At this point, the Ottomans had made the most formidable empire in the Islamic world. They had learned a great deal about the use of artillery during previous engagements with the Mamluks to the south and during conflicts in Hungary. While they had developed very little of their own technology, Ottoman gun crews were extremely skilled in its use, both in portable handheld forms and larger artillery pieces. Even Sultan Mehmet II himself was well educated in the art of ballistics and, upon seeing some of his batteries being ineffective, pioneered a new use of a long-range mortar during the siege.

Orban set to work near the capital of Edirne and Mehmet stockpiled supplies for gunpowder, copper and tin as he worked. His crews dug enormous casting pits in the ground and melted scrap bronze in nearby furnaces, superheated by bellows to pour into the mould. From the moulds, a monster emerged.

The siege began in April 1453. From the start, Ottoman gunners had a difficult time aiming this huge cannon, as it was positioned on a combination of removable wooden blocks, as well as earthen ramparts. It was positioned with a group of four smaller cannons that the Ottomans called 'bear and cubs'. Teams also had to clear out fields of fruit trees to provide a clear line of sight.

To make things worse, the gun kept sinking in the April mud. Once fired, it took an extraordinarily long time to cool down and had to be drenched with copious amounts of oil and cleaned frequently. The cannon was only capable of about seven shots per day, each reinforced in a triangular pattern by the smaller cannons. In all, the 69 guns of Mehmet's

batteries were capable of launching about 150 volleys per day.

Basilica's ammunition was mined from areas along the Black Sea and was never of an exact size, so it would be padded with sheepskin or wood. Its production was so intensive that Ottoman gunners would often attempt to drag undamaged munitions back from the walls with large nets, to be recycled. Despite the enormous amounts of bronze, its construction was still too weak for the enormity of its shot. During the siege, it had to be repaired by Orban numerous times, and was reinforced by iron rings after it had cracked.

The defenders of Constantinople also responded to Ottoman attacks with their own cannons and even packed some with multiple small projectiles in a shotgun-like fashion. However, their guns were smaller and their recoil often damaged their own walls.

A view of the partially ruined remains of the walls of Constantinople as they stand in modern-day Istanbul



FALL OF CONSTANTINOPLE

In the end, cunning strategy toppled the Byzantines, not the use of a sole super weapon. Although Orban's supercannon was able to penetrate the walls of Constantinople that had stood unbreached for more than a millennium, this was not enough to conquer the city.

Sparsely populated after being sacked so many times by Crusaders, in 1453 Constantinople was only urbanised in its easternmost extremity, with the rest of the area inside the massive walls comprising village-sized settlements separated by large fields and rural segments. Within the walls its citizens grew their own food and farmed livestock. In theory, it could withstand extremely long sieges, as it had before – including an Umayyad assault in the 7th century.

The Byzantines had intended to dig in and withstand the siege long enough for significant reinforcements to arrive. Had this happened, it is unclear what the ultimate goal could have been as a completely encircled city-state. Nonetheless, Emperor Constantine XI made desperate pleas for help from the Latin West, even asking the pope himself to come to his aid despite their theological differences. When the siege began, the city had only about 10,000 professional soldiers at its disposal, of which almost 3,000 were foreigners – mainly from the major powers of Venice and Genoa.

Although the defenders were outnumbered, Constantinople was still arguably the best-defended city in Europe at the time. In opposition, the Ottomans intended to batter the walls patiently by both land and sea. By doing so, they planned to quickly capture the city before the world had any chance to react.

Whenever the Byzantines and their allies presented a formidable obstacle to Ottoman forces, the Ottomans would find a way around it. At sea, the defenders had a distinct advantage – their ships, albeit fewer in number, were larger and stronger than the Ottomans' and they had blockaded the Golden Horn with a large chain barrier. In response, the Ottomans created a greased wooden slipway and transported their ships on land around the defences. Also, as the walls were slow to fall, the Ottomans created a pontoon bridge across a weaker point in the Golden Horn to allow for the transport of artillery and troops, bringing them closer to the city.

As the Ottoman artillery began cracking the walls, the defenders worked endlessly and kept plugging the holes and reinforcing them with earth and wood to absorb their impact. Inevitably, they were overwhelmed by the speed and volume of the attacks, and a group of 50 Janissaries poured into the cracks near Kerkopoporta, with the prospect of an elevation of rank for the first who scaled the walls and raised the Ottoman banner on the ramparts. Once Saint Romanus's gate was breached, Constantine XI himself sat within sight.

With these first volleys of the sultan's cannons came the beginnings of modern artillery and, likewise, the Byzantine defenders saw the entire history of siege warfare disintegrate before them. No longer was a fortress enough to keep out an invader.



Right: Mehmet the Conqueror enters the defeated city of Constantinople

SUPERCANNONS OF THE FUTURE

Unfortunately the Basilica gun was lost to history following the siege. Nonetheless, Munir Ali, Orban's successor, carried on the tradition of casting supercannons as well as other artillery. Eventually, these guns were superseded by other artillery pieces with smaller bores but longer barrels, and more-efficient gunpowder.

For the next few centuries the development of weaponry trended in this direction and these super guns made only occasional appearances again. Their use had become increasingly irrelevant as heavily fortified cities became less and less prevalent.

In 1463, Munir Ali cast a gun that would stand watch over Istanbul for the next three and a half centuries. It would later be used by desperate Ottoman troops in 1807, to devastating effect against a British fleet that tried to force the Dardanelles.

Whenever heavy fortifications emerged again, the concept of the supercannon also returned as a possible solution. During the Crimean War, the British developed 'Mallet's Mortar' but never used it in combat. In World War I, a series of extremely long railway-mounted howitzers emerged to dislodge troops from trenches.

The Nazis resurrected the idea in the 1930s with the Schwerer Gustav and Dora rail cannons, with the intent of destroying the concrete defences of the Maginot Line, and was used in the Siege of Sevastopol. At the end of World War II, the USA experimented with a modern bombard nicknamed 'Little David' in a planned siege against what they imagined was a heavily fortified Japan.

After World War II, the USSR and USA both developed field cannons capable of firing nuclear weapons – an extreme continuation of this same legacy. For the most part,

mechanised warfare seemed to prefer more mobile equipment. As such, these guns, even having proved their effectiveness at specific engagements, remained largely a curiosity.

As it stands, modern militaries have shifted towards asymmetrical warfare and away from heavy fortifications of any kind. If they ever return, the guns to breach them and the inheritors of the legacy of Orban's gun, are sure to emerge again.

Right: Mallet's Mortar was designed to fire 1,270kg cartridges



“WHENEVER HEAVY FORTIFICATIONS EMERGED AGAIN, THE CONCEPT OF THE SUPERCANNON ALSO RETURNED AS A POSSIBLE SOLUTION”



A railway supercannon fired by French troops during World War I



Heroes of the Medal of Honor

ALVIN C YORK

In one of the most infamous assaults of World War I, Sergeant York defied the odds and took 132 German soldiers prisoner with a handful of men

WORDS DOM RESEIGH-LINCOLN

Considering the icon of American military success he'd become, Sergeant Alvin C York of the 82nd Division was an unlikely candidate for warfare. A reformed violent alcoholic and devout Christian, the Tennessee-born son of a blacksmith originally tried to avoid enlisting for military service – not because he wanted to dodge the responsibility of serving his country, but rather because he didn't believe in taking up arms against his fellow man.

"I was worried clean through. I didn't want to go and kill," he remarked at a lecture later in his life. "I believed in my Bible." But his request for conscientious objection (a position he would later deny) was formally rejected and he was soon shipped off to fight. Yet for all protestations, Sergeant York would perform one of the most daring acts of the entire conflict and earn the most prestigious commendation in the US military: the Medal of Honor.

The third of 11 children, Alvin C York was born on 13 December 1887 into an impoverished family living in Pall Mall, Tennessee. The United States was only two decades removed from the onslaught of the civil war when York entered the world and the former secessionist state was still recovering from the devastating domestic conflict. Times were hard. As such, York, like his seven brothers, spent only nine months in formal education before his father William brought him home to work full time on the farm.

From an early age, the young York was no stranger to the hard graft of farm work. When his father died in November 1911, the running of the household fell to the 23-year-old (his two older brothers Henry and Joseph had already moved out of the family home) and he soon took up a number of jobs, including logging and working on the local railway. He was devoted to

his family, but was also a burgeoning alcoholic, prone to brawls and dust-ups in local bars.

He still attended church on a regular basis with his devout mother and siblings, but it wasn't until January 1915 that York finally left the alcohol behind and embraced his faith. While he was raised a Methodist, it was a more recent branch of the Christian faith that drew his attention. His new congregation, the Church of Christ in Christian Union, had no official pacifist doctrines per se, but it did shun violence as much as it opposed division between the many Christian sects.

On 5 June 1917, the Selective Service Act came into effect and men aged between 21 and 30 were legally bound to enlist for military service. York attempted to seek conscientious objection on the grounds of his stringent new spiritual beliefs, but as the Union wasn't recognised as an official branch, his request was denied. He was drafted into the US Army and assigned to Company G, 328th Infantry

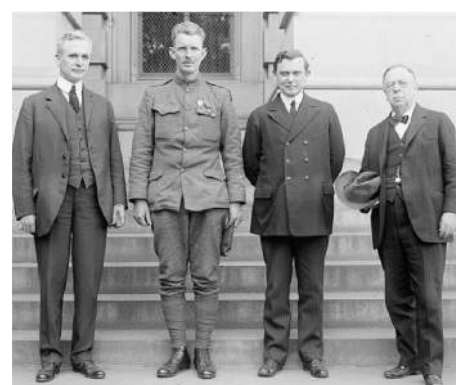
Regiment, 82nd Infantry Division at Camp Gordon, Georgia, but his new posting didn't sway his fears. Troubled by the war, York was granted ten days of leave; when he returned, he came with the belief that God intended him to fight, devoting himself to his new mission with all the fervour he'd given his new church.

York and his division were then posted to France to take part in the US Army's first offensive of World War I, the Saint Mihiel Offensive. Up until this point, the United States had attempted to stay out of the conflict, but the unrestricted and vicious attacks from German submarines had proved an encroachment too far, with President Woodrow Wilson requesting Congress officially declare war in April that year.

When US Army forces, including the US Air Army Service (later known as the US Air Force) arrived in north-east France in September 1917, they caught the Germans in a state of retreat. The unprepared enemy scrambled to react to the new American military presence, and York (now a corporal) and his fellow compatriots helped secure an Allied victory in a matter of a few days. The 82nd Division was then shifted further north to take part in the Meuse-Argonne Offensive, one of the final battles of World War I.

On 8 October, Allied forces, including the 82nd, successfully took Hill 223, located along the Decaerville railway line north of Chatel-Chéhéry. However, as forces swarmed down the hill on the other side, they found the triangular valley at the bottom was a death trap. German machine-gun emplacements were encamped on ridges around the valley and they gunned down Allied soldiers in their droves. Pulling back to a safe distance, it was decided that the only way to progress forward and take control of the Decaerville railway was to manoeuvre around the gun nests and silence them.

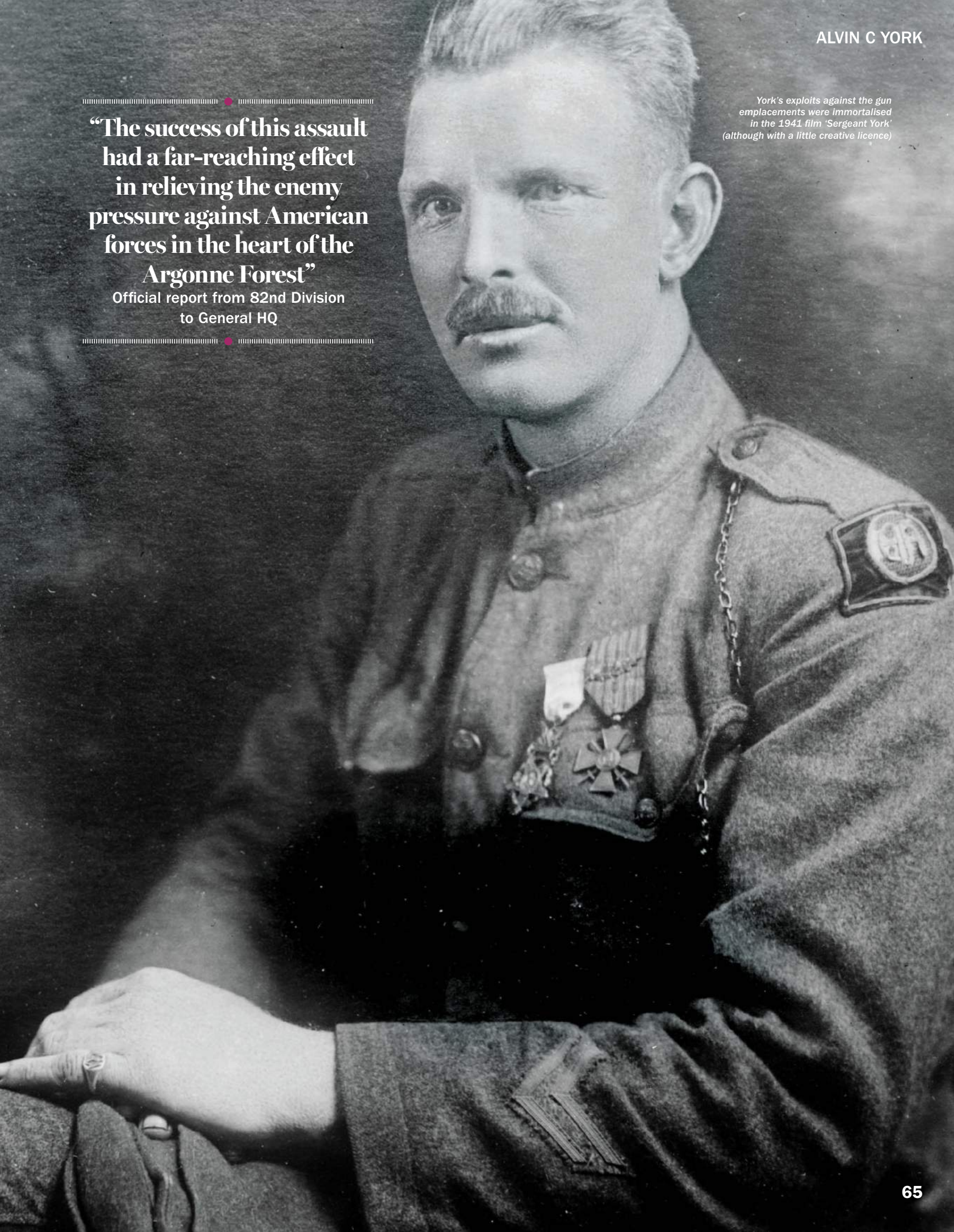
Below: York became a figurehead for promoting the US military's successes in World War I, but he never grew comfortable with this new fame



“The success of this assault
had a far-reaching effect
in relieving the enemy
pressure against American
forces in the heart of the
Argonne Forest”

Official report from 82nd Division
to General HQ

York's exploits against the gun
emplacements were immortalised
in the 1941 film 'Sergeant York'
(although with a little creative licence)



“WITH THE GUNNERS DISTRACTED BY THE REMAINDER OF HIS TEAM, THE CORPORAL MOVED FORWARD ALONE, MANOEUVRING SWIFTLY AND SILENTLY THROUGH THE TRENCHES”

05 German surrender

Despite the deadly wave of bullets peppering his position, York reportedly kills a total of 20 German soldiers. With his unit also proving unwaveringly defiant, German First Lieutenant Paul Jürgen Vollmer orders the surrender of the emplacements. A total of 132 German soldiers are taken prisoner.

03 Taking charge

With Sergeant Early among those critically wounded, York is now in command of the unit. With the gun emplacement still shredding the cover around them, York leaves the remaining eight able soldiers to guard the prisoners while he moves forward alone to silence the guns.

01 Behind enemy lines

Four noncommissioned officers, including a recently promoted Corporal York, and 13 privates are ordered to infiltrate enemy lines. Under the command of Sergeant Bernard Early, they're tasked with taking out a series of machine-gun emplacements.

02 Assault under fire

York and the unit overrun the headquarters of a German unit that was planning to launch a counter-attack. While Early's men are dealing with the prisoners obtained from the German headquarters, a nearby gun nest hammers the exposed American soldiers, killing six of the team and wounding three others.

“Fearlessly leading seven men, he charged with great daring a machine-gun nest that was pouring deadly and incessant fire upon his platoon”

Official citation for Sergeant York's Medal of Honor

A unit under the command of Sergeant Bernard Early was tasked with moving behind enemy lines and overrunning the emplacements. A total of four noncommissioned officers, including York, and 13 privates used the large amount of brush and tall bushes to flank the gun nests, moving through woodland until they were positioned at the rear of the network. Working from such an advantageous position, Early, York and the rest of the unit were able to immediately overrun the main headquarters.

The tactic proved to be both a blessing and a curse for the team. Caught completely by surprise, the HQ was taken almost entirely without bloodshed and Early and his men took a large contingent of prisoners within minutes of beginning their offensive. Unfortunately, the covert nature of the assault was soon torn apart when one of the German soldiers manning a gun emplacement noticed the fracas and opened fire on the exposed unit. Six Americans were killed outright, and another three were critically injured in the opening salvo, including Early.

With his senior officer incapacitated, command of the unit was passed to York. By this stage, the gun emplacement was peppering the cover sheltering York, the wounded and those soldiers still able to fight. It had become clear that the unit wouldn't be able to silence the guns from their current position, so York ordered his men to stay where they were and continue exchanging fire. With the gunners distracted by the remainder of his team, the corporal moved forward alone, manoeuvring swiftly and silently through the trenches.

Lying prone and peeking over the embankments, York began sniping at the gunners, killing enemy after enemy as the Germans struggled to locate this unexpected source of fire. However, just because he had accepted that his life as a soldier was a calling from God didn't mean that he'd left his ideals behind in Georgia. He began calling out to the soldiers, imploring them to surrender and avoid further bloodshed, only returning fire when it was clear such a course of action was not a consideration. With his men also pressing the gun emplacement, a contingent of six German soldiers were dispatched to hunt him down. The kill team might have been successful had York not spied them in time, switching to his pistol and dispatching each one at close range.

York continued his assault on the machine-gun emplacement, picking off any soldier that was foolish enough to peer over the embankment. As time went by, the man in charge of the gun nest, First Lieutenant Paul Jürgen Vollmer, realised his men were too exposed and proceeded to offer his and his men's surrender to the lone sniper. York accepted and returned to American lines with 132 German prisoners in tow.

Some reports suggest York killed up to 20 German soldiers that morning, although he has always distanced himself from those claims as well as the propaganda that swirled around him upon his return. Yet whatever that final number may have been, Corporal York put his life on the line in one of the most daring acts of valour. He was swiftly promoted to sergeant and awarded the Distinguished Service Cross. Following the end of the war, all commendations were reviewed and York's medal was upgraded to the Medal of Honor in recognition of his actions in the final months of the conflict.

Below: The Meuse-Argonne Offensive was one of the costliest to American lives, with more than 26,000 dead

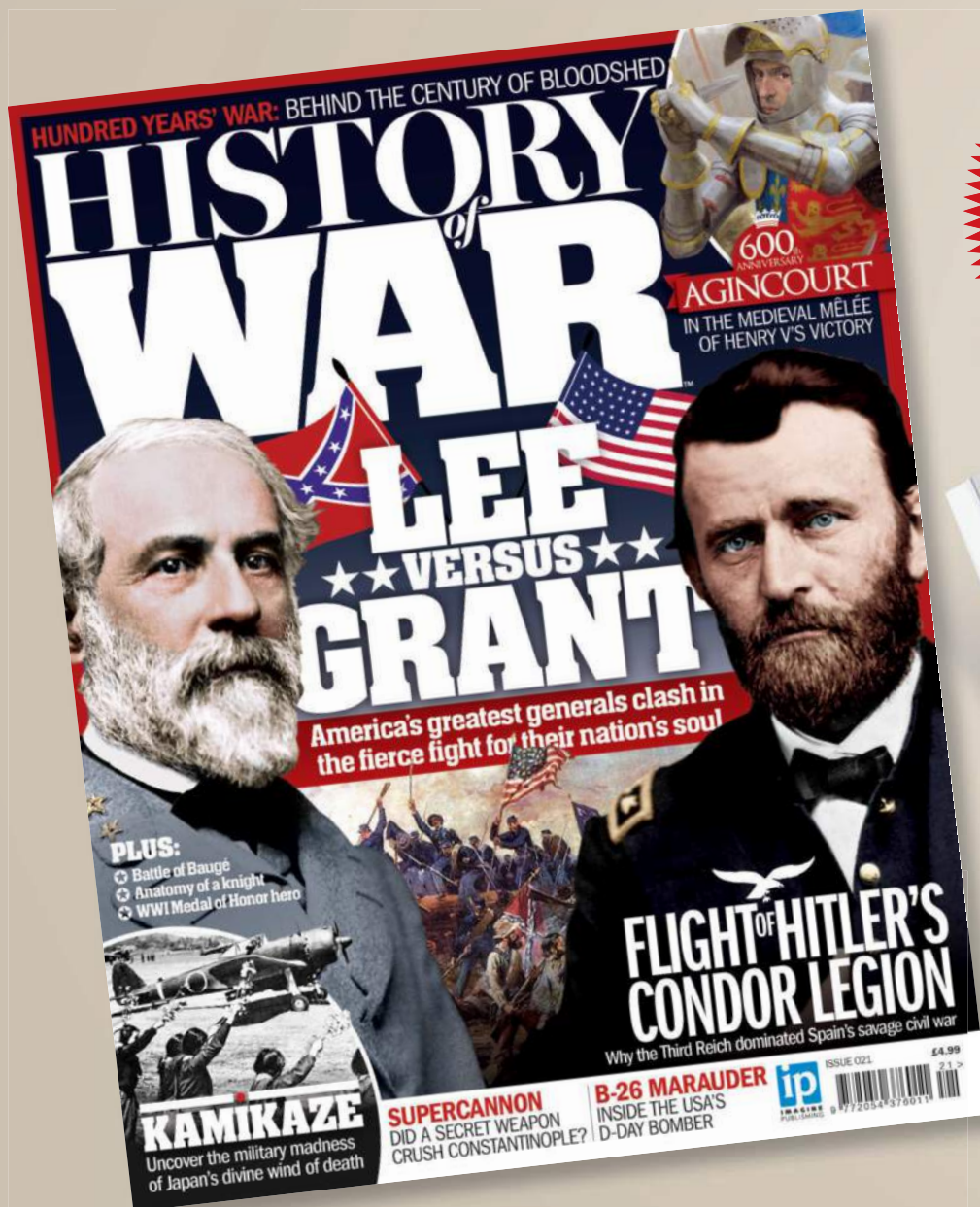
04 Exchange of attrition

More than 30 German machine guns are now blazing at York and his men. While calling out continuously in an effort to convince them to surrender, York is forced to kill enemy after enemy with his rifle. Six soldiers attempt to run him through with their bayonets, but he reluctantly dispatches them all with his pistol.



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B-26

MA



Only 17 per cent of B-26s were lost in battle, the lowest ratio of any Allied plane during the war

MARTIN B-26G 'MARAUDER'

ROLE: HIGH-PERFORMANCE TWIN-ENGINE MEDIUM BOMBER
NATIONS SERVED: USA, UK, SOUTH AFRICA, FRANCE
LENGTH: 17.7M (58.3FT)
WINGSPAN: 21M (71FT)
MAXIMUM SPEED: 458KM/H (285MPH)
MAXIMUM ALTITUDE: 6,035M (19,800FT)
RANGE: 1,770KM (1,100 MILES)
CREW: 6/7 MEN
ENGINES: 2 x 1,930HP PRATT AND WHITNEY R-2800-43
ARMAMENT: 11 x .50-CALIBRE BROWNING MACHINE GUNS
BOMB LOAD: 1,814KG (4,000LB)

"AFTER SOME MODIFICATIONS AND EXTRA PILOT TRAINING, THE B-26 BEGAN TO REALISE ITS POTENTIAL AS A BOMBER THAT COULD TURN THE TIDE OF THE WAR"

MARAUDER

WORDS JACK GRIFFITHS

B-26 bomber nicknamed 'A Kay Pea's Dream', which was later hit by flak during a raid over France

Nicknamed the 'Flying Torpedo', this US Army Air Force war bird helped crush the Axis from the skies

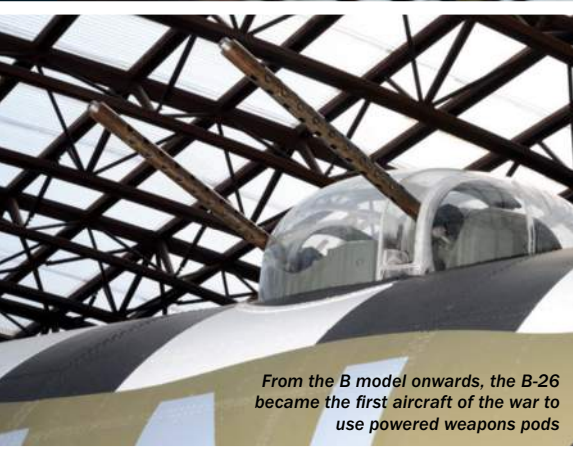
Coming in almost 20 variants, the B-26 was the workhorse of the United States Army Air Force (USAAF) bombing operations of World War II. First introduced in 1941, 201 Marauders were ordered straight off the drawing board with no time to build and test a prototype.

Part of President Roosevelt's 50,000 aircraft for US defence programme, it went on to serve in both the European and Pacific Theatres of the war, flying out with the 22nd Bombardment Group the day after the attack on Pearl Harbor.

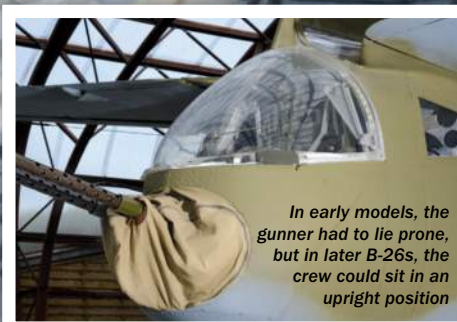
An innovative cantilever shoulder wing monoplane design, the aircraft began unimpressively as it recorded a number of training accidents with 15 crashing in 30 days, earning it the nicknames 'Widow Maker' and 'Martin Murderer'.

The design put cruise efficiency ahead of handling at low speeds, so many crews initially stayed well away from the aircraft. However, after some modifications and extra pilot training, the B-26 began to realise its potential as a bomber that could turn the tide of the war.

Used for tactical air support, 5,157 B-26s were constructed, with the RAF also purchasing 522. It was most effective in the European Theatre, operating in medium-altitude attacks in Normandy and the invasion of Italy. B-26s also saw service in the Battle of Midway in the Pacific Theatre. As the war ended, the role of the Marauder was fast diminishing. The majority were retired from service by 1947, and only a handful remain in existence today as relics of the mass World War II bombing operations.



From the B model onwards, the B-26 became the first aircraft of the war to use powered weapons pods

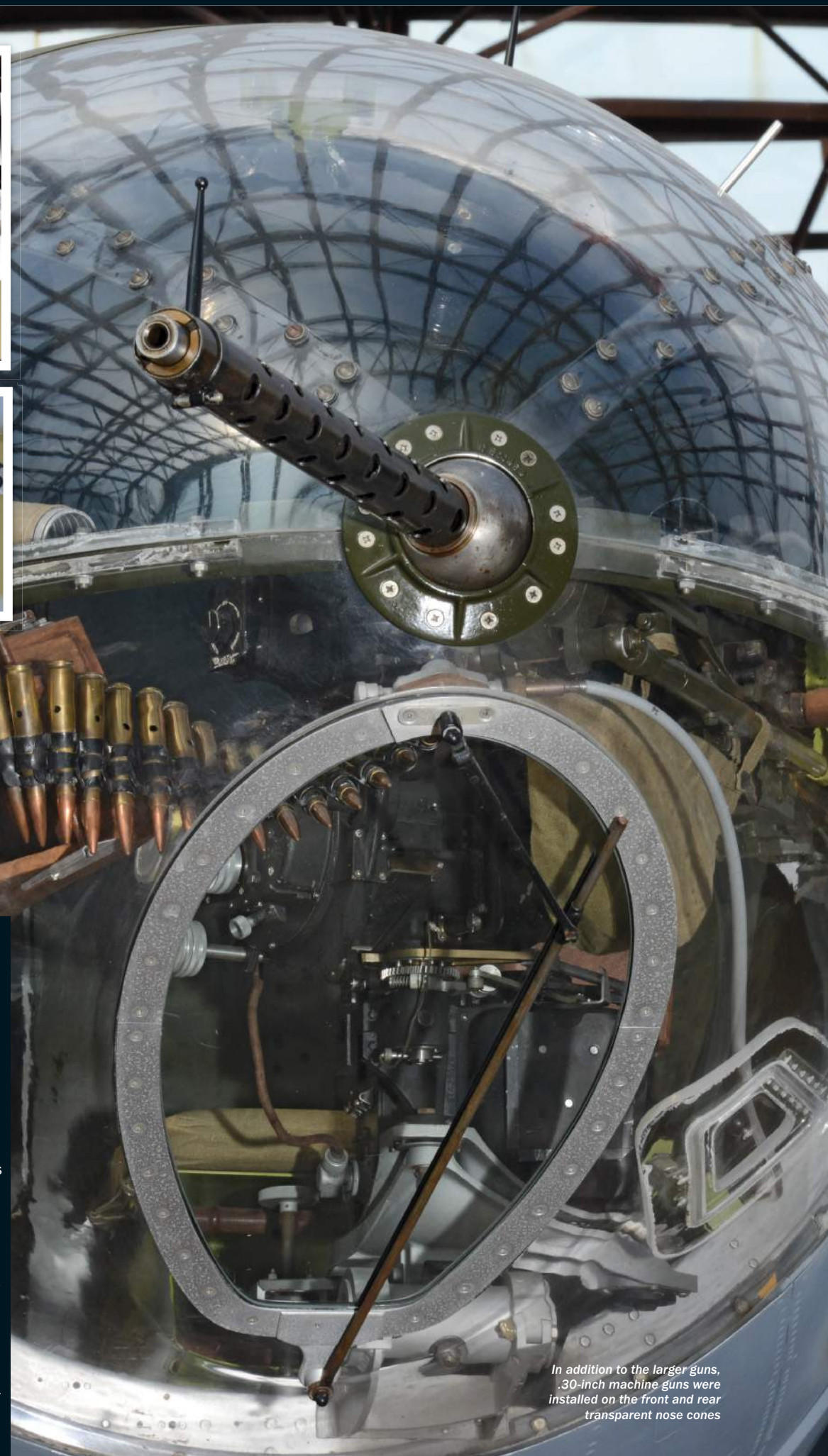


In early models, the gunner had to lie prone, but in later B-26s, the crew could sit in an upright position

ARMAMENT

The B-26 boasted some serious weaponry. 11 .50-inch machine guns provided an immense amount of firepower with four guns on the fuselage sides, one in the nose, two in the dorsal and tail area and two in ventral positions. These turrets were the first of their kind and rotated on large ball bearings. Experienced gunners could turn 360 degrees and create a diagonal swathe of fire to shoot Axis fighters out of the sky.

As well as the main armament, some B-26s included several smaller .30-inch machine guns, which were dotted around the fuselage. These guns acted in a defensive capacity and would protect the aircraft from enemy fighters and anti-aircraft positions when on bombing runs. The rear gun was invaluable as it helped take down Messerschmitts, Zeros and any other Axis planes on the bomber's tail. However, the B-26's main feature was its bombs. It had two bomb bays, one in the fore and one in the aft. Up to 1,814 kilograms (4,000 pounds) could be carried for devastating strike sorties.



In addition to the larger guns, .30-inch machine guns were installed on the front and rear transparent nose cones

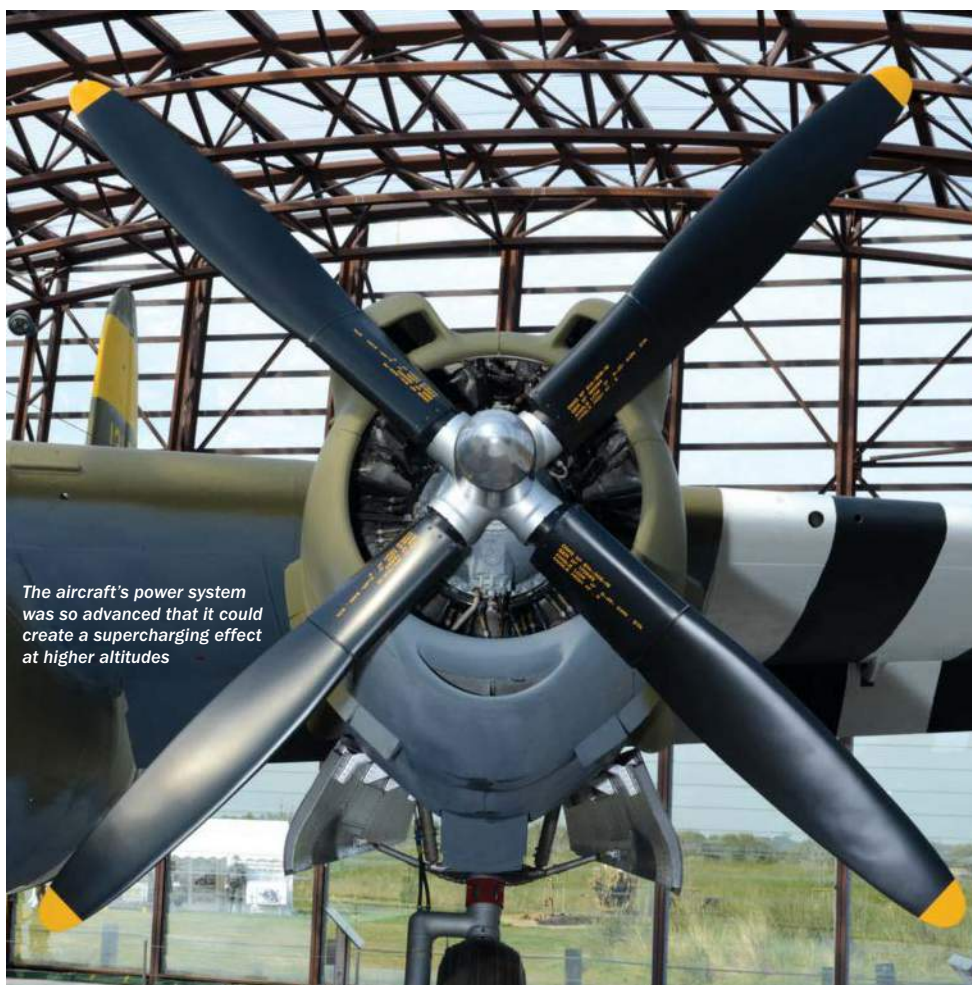
PROPULSION

To carry the weighty payload, the B-26 used two four-bladed propellers. It was the first Allied aircraft built in World War II to use four blades in its propulsion system and could generate up to 1,930 horsepower. The Pratt and Whitney R-2800-43 wasn't limited to the Marauder, and was also used on other US aircraft such as the F4U Corsair, F6F Hellcat and P47 Thunderbolt fighters. The 18-cylinder engine was incredibly versatile and was used in planes in the Korean War as well as World War II.

The undercarriage of the B-26 was unique in its design. Using a tricycle shape, it incorporated a nose wheel rather than the traditional tail wheel. It had a landing speed of 209 kilometres per hour (130 miles per hour), unusually high for a plane of the era, and remained an effective, if unorthodox, control system for a medium bomber. The design of the B-26 was altered in development and it originally featured a twin tail, but this was dropped in favour of a single fin to give the tail gunner a better view of oncoming targets.



The bombs painted under the cockpit indicate how many missions the plane had flown



The aircraft's power system was so advanced that it could create a supercharging effect at higher altitudes

THE B-26 OF THE UTAH BEACH MUSEUM

HAVING BEEN AT THE MUSEUM SINCE 2011, THE MARAUDER IS A POPULAR EXHIBITION AND ONE OF ONLY SIX LEFT IN EXISTENCE

The Marauder on display at the Utah Beach Museum in Normandy arrived in France on 20 May 1945. It was put into service too late to fly in any combat missions and it resided in the French base at Mont-de-Marsan, just south of Bordeaux. After the war, it was painted in French Army colours and given to Air France, who used the aircraft to train future mechanics. It was later donated to the French Air and Space Museum in 1967 and locked away in storage for 25 years. However, in 1993, it resurfaced as technicians tasked with refurbishing the plane found that numerous pieces of original equipment were missing. A restoration team managed to locate the missing parts as the B-26 neared its original condition. In 2011, the plane was moved to the Utah Beach Museum and repainted in the colours of the 386th Bomb Group, who served with distinction on D-Day. For more information on the museum and its work, please visit: www.utah-beach.com.



During D-Day, the US 9th Air Force attacked German defences on Utah Beach, where this B-26 is currently housed

"THE REAR GUN WAS INVALUABLE AS IT HELPED TAKE DOWN MESSERSCHMITTS, ZEROS AND ANY OTHER AXIS PLANES THAT WERE ON THE BOMBER'S TAIL"



Above: Based on practicality rather than comfort, the cockpit wasn't big on crew luxuries

COCKPIT

The armour-plated cockpit of the B-26 was operated by a pilot and a co-pilot. A centre console stood at the front, which included the throttle as well as propeller and mixture controls. The controls for the landing gear and flaps were at the back of the console. Notoriously tricky to handle for many pilots, many had no experience of twin-engine aircraft prior to the B-26. The weight of the Marauder also made the stalling speed and landing speeds higher than the majority of other planes in the US Military. The early issues with the B-26 were down to its rushed production, as it was overloaded with equipment and put into low-level attack missions, something it was completely ill-equipped to undertake.



The crew of a Marauder comprised a pilot, co-pilot, bombardier, radio operator, navigator, dorsal gunner and tail gunner

BOMBERS OF THE USAAF THE OTHER AIRCRAFT THAT THE USA USED TO BOMB GERMANY AND JAPAN INTO SUBMISSION

B-25 MITCHELL

The Mitchell was once the most heavily armed plane in the world. It participated in the 1942 Tokyo Raid, the first Allied attack to strike the Japanese home islands.



B-24 LIBERATOR

The most produced US aircraft of the war, an astonishing 18,400 were made. The Liberator served all over the world utilising its range of more than 2,000 miles.



DOUGLAS A-26 INVADER

Also sometimes called a B-26 but not to be confused with the Marauder, the A-26 was a versatile and long-serving aircraft. It served in the Korean and Vietnam wars.



B-17 FLYING FORTRESS

As the name suggests, the B-17 was a giant of the sky. Many were based in the UK and deployed to Germany to take part in relentless daylight bombing raids.



CONSTRUCTION

It may have been rushed off the production line, but the B-26 was a sophisticated war machine. Entering, and subsequently winning, a competition for a new US medium bomber in 1939, one of the major differences between it and its predecessors was the use of plastic. Before the Marauder, military aircraft were made mostly out of metal, but the B-26 changed this by using cheap and readily available plastic. It also used butted seams

rather than lapped seams in its covering, making the fuselage more streamlined, earning it the 'torpedo' nickname.

The Marauder carried so much equipment that it couldn't sustain much flak before getting in trouble. This made it ineffective at low-level attack missions, meaning it was soon changed to a medium-level bomber to make it more durable in combat. The original models also suffered from problems with the landing gear, but these were corrected by a heat-treatment process that improved the hydraulic system.

"BEFORE THE MARAUDER, MILITARY AIRCRAFT WERE MADE MOSTLY OUT OF METAL, BUT THE B-26 CHANGED THIS BY USING CHEAP AND READILY AVAILABLE PLASTIC"

The design was put forward by Peyton M Magruder of the Glenn L. Martin Company, but was a work in progress for the first few years of its life



A shoulder-mounted monoplane design, the engines had a forward placement in the wings so the cockpit could keep a closer eye on their condition

A small wing area helped give the B-26 a formidable top speed of 458km/h (285mph)



THE AMERIKA BOMBER PROJECT

During the latter stages of the war, a long-range bomber was sought after by the Axis powers. With the added resources and manpower from the USA bolstering Britain and the USSR, attacks on the American mainland could stunt Allied wartime production significantly. The 'Amerika Bomber' and 'Project Z' programmes were put forward by Nazi Germany and Imperial Japan respectively. The Germans prototyped the Messerschmitt Me 264 for strikes on New York from continental Europe in December 1942. Heavily armoured and fitted with a turbocharged

engine, it would have been very similar to the USAAF B-29 Superfortress. The proposal could have feasibly worked, but constant Allied bombing and a lack of raw materials in the Third Reich dashed hopes of a transatlantic attack. As for Project Z, the Japanese simply did not have the engine power to make a realistic effort at attacking the USA. The Ha-44 engine was the most powerful available at the time, but it would have suffered cooling problems trying to lift a bomber capable of sustained attacks on American soil.

Only three ME 264s were built before the German project was abandoned



War in Donbass

A separatist rebellion has torn apart Ukraine's east and brought relations between Russia and the West to their lowest level since the Cold War

WORDS TOM FARRELL

As the capital of Ukraine's breakaway region of Donbass, Donetsk has somehow avoided the completely shattered look of many cities in war time. There are plenty of bullet and mortar-gouged buildings, but on many streets, there is a semblance of normalcy. Even so, at least two thirds of businesses are believed to have closed and there is no banking in the city.

A curfew descends at 10pm, and in the distance, the thud of exploding mortars can be heard. Pre-war Donetsk, a mining town whose Soviet legacy is evident in its socialist-realist buildings of state, was home to more than 1 million people; many of them have now fled. Donbass encompasses the two Oblasts (administrative divisions) of Donetsk and Luhansk. Its pre-war population was 4.5 million, and most of the 2 million civilians internally displaced by the fighting in Ukraine originated from here.

Although the pro-Russian insurgents who control the city have not erected checkpoints around Donetsk, they can sometimes be seen bouncing through the streets in cars or minivans. On occasion, they may pass the 11-storey government buildings where, on 11 May 2014, the separatist Oplot militia gathered to declare independence from Ukraine. Oplot was led by the 37-year-old Alexander Vladimirovich Zakharchenko. By the time he was appointed prime minister of the Donetsk Peoples' Republic (DPR) in August, the region was mired in bitter fighting.

In the aftermath of the populist revolt that toppled President Viktor Yanukovich, the EU and NATO-friendly posture of Ukraine's new

government had inflamed its chief patron, President Vladimir Putin. When separatist rebellion spread through Donbass, Russia began to intervene on behalf of the insurgents. It is uncertain how many military and civilian deaths have occurred since May 2014; estimates go up to 7,000.

The alienation many Russian speakers felt after the fall of Yanukovich is attested to by the agenda of the Donbass-based Novorossiia (New Russia) Party. As announced by the Donetsk 'People's Governor' Pavel Gubarev on 22 May 2014, it promises the nationalisation of key industries, Russian orthodoxy as the state religion and a confederation of Ukraine's southern and eastern regions.

A key turning point in the conflict came in mid-2014, when Putin began extending 'humanitarian' assistance across the border. Donbass has since come to resemble one of the proxy battlefields of the Cold War. During this period, unwilling to risk a direct confrontation and possible escalation to a nuclear war, Moscow and Washington 'outsourced' conflict to various client regimes and insurgencies throughout Africa, Asia and Latin America. Today's conflict in the industrial east of Ukraine, however, is ethno-nationalist and territorial rather than ideological.

But the Cold War echoes are evident. Officially, the Kremlin denies it has troops fighting in Ukraine even if bases are mushrooming on the Russian side of the border. Officially, the United States has sent 300 troops to western Ukraine for advisory and training purposes. Total 'non-lethal' aid has reached \$300 million.

"It is uncertain how many military and civilian deaths have occurred since May 2014; estimates go up to 7,000"

UKRAINE'S ESCALATING POLITICAL TURMOIL

August 1991

Following an attempted coup in Moscow, Ukraine's parliament declares independence from the Soviet Union in a referendum endorsed by 90 per cent of the electorate.

November 2004

The Orange Revolution begins, led by Viktor Yushchenko and Yulia Tymoshenko, after reports of election rigging by the pro-Russian premier Viktor Yanukovich. Protests centre in Kiev's Independence Square.

February 2010

Viktor Yanukovich is declared winner in the presidential election and begins to reverse democratic reforms. His rival Yulia Tymoshenko will be arrested in the next year on charges of abusing her powers.

A pro-Russian separatist taking part in the capture of Debaltseve in February 2015



After the 17th century, when the Ukrainian Cossacks signed a treaty with the tsar of Moscow, the western regions of Ukraine passed between the rule of Warsaw and Moscow. Long after this, the glue of Soviet power held in place a fault line between the western and Slavic worlds for a long time. That fault line is once again active, with nuclear-armed players on either side.

Euromaidan

For many outside observers, however, it had been a question of when, not if, this fault line would become active. Viktor Yanukovich himself had hailed from Donbass. Resource-rich and nestling on Russia's southern flank, a consultative referendum in the region in 1994 had been called concurrently with Ukraine's first parliamentary election. But its proposals, endorsed by most of the Donbass population, were ignored: Ukraine did not federalise and Russian was not adopted as a state language.

Thereafter, calls for autonomy faded for a few years. At the behest of the World Bank, a bracing programme of privatisation was pushed through Donbass and many mines were closed. Awash with new, and often corrupt, money, a regional elite of oligarchs became rich. Many provided support for Yanukovich.

Upon taking power in February 2010, he rapidly reversed the pro-Western stance of his predecessor Viktor Yushchenko, who had been elevated to the presidency by the 2004 'Orange' Revolution.

Ukraine's politics were watched cautiously by President Putin. Nationalistic and authoritarian, the former KGB lieutenant colonel has sought to re-establish a Russian 'sphere of influence' of the type that existed in the Cold War era. Moscow has sought to reign in any overtures to the west by several nearby nations: Belarus, Moldova, Armenia, Azerbaijan and Georgia. But Ukraine was ahead of the others in having already initialised a trade agreement with the European Union.

Opponents of Yanukovich wanted more, however. During November and December of 2013, there had been anti-government protests in Kiev. The 'Euromaidan' movement sought a closer relationship with the EU and, later, changes to the Constitution that would lessen presidential power.

To Putin and his Slav-nationalist power base, this was a dangerous precedent, one that could bring NATO right up to Russia's borders. A critical turning point came on 17 December, when Yanukovich announced a deal struck with Putin wherein Russia agreed to buy \$15 billion in Ukrainian bonds and slash the price of natural gas by one third.

Essentially, this was a rebuke to the protestors, who nonetheless were back on the streets by 24 December. The protests were

"Molotov cocktails, projectiles and barricades were met with tear gas and riot shields"

concentrated around Maidan Nezalezhnosti (Independence Square). 24 years earlier, when it had been called Lenin Square, thousands of students had gathered there and called for a referendum on breaking from the Soviet Union. A decade before, the Square had been a focal point of the Orange Revolution.

Now protestors once again formed their own 'zone' in Maidan Nezalezhnosti and demanded that Ukraine sign an Association Agreement with the EU.

Tens of thousands of people clashed with the security forces on Kiev's streets: Molotov cocktails, projectiles and barricades were met with tear gas and riot shields. Then, on 20 February, the police used live rounds, killing more than 50 civilians. Yanukovich was shipped off to Moscow a few days later. Russia denounced the overthrow of his government as a "fascist coup."

Crimea annexed and aftermath

Not that Ukraine's strongman was prepared to gently bow out: on 1 March, Yanukovich, now in exile, called on Russian forces to "establish legitimacy, peace, law and order, stability and defending the people of Ukraine."

Putin certainly had some radical ideas on how to do this. On 16 March, a referendum in the Crimean region decisively endorsed Russian rule. By that point, Russian troops had already seized key locations in the peninsula. The referendum results were internationally contested: sanctions were imposed on Russia along with travel restrictions and bans against certain citizens.

Putin did not budge: the loss of Crimea to a Western-aligned regime would spell the end of Russia as a world power if the Russian fleet could not access Sevastopol, their only warm-water port.

Moreover, while these events unfolded, semi-populist revolts erupted in the resource-rich east. The first phase of the 'War in Donbass' would last roughly from mid April to late June 2014. Self-proclaimed militias representing the Russian-speaking minority materialised and, usually after standoffs with the authorities, seized key buildings.

Once the independence of Donetsk and Luhansk had been formally declared on 11 May, the battles grew more violent. Pro-Russian



21 November 2013

Yanukovich's cabinet abandons a trade agreement with the EU and later announces a deal on energy and the purchase of bonds with Russia's Vladimir Putin. First anti-government protests begin.



16 January 2014

After thousands of protesters occupy Independence Square in Kiev, parliament passes anti-protest laws. Clashes with the security forces become more violent.

20 February 2014

Several dozen demonstrators are killed over 48 hours in Kiev in the worst violence in the capital for decades. Video footage shows uniformed snipers firing on protesters.



22 February 2014

As protesters seize administrative buildings, Yanukovich disappears and later resurfaces in Moscow. Yulia Tymoshenko is freed from prison and parliament votes to remove the president from office.



Above: Donetsk International Airport lies in ruins after being captured by rebels

Left: In January 2014, a barricade is set alight in Kiev after anti-government protests turned violent

Below: A Russia-backed rebel takes cover in the ruins of Donetsk International Airport

Below, left: A Cossack fighter stands near two Ukrainian soldiers' bodies on the outskirts of Debaltseve



“The loss of Crimea to a western-aligned regime would spell the end of Russia as a world power”

rebels were able to source government-owned vehicles and weaponry. But by mid July, most rebel-held towns had been retaken by the government forces. Following a week-long ceasefire, the breakaway region seemed poised to be retaken by the government.

This first phase of the war got under way while the dust of the Euromaidan revolution was still settling in Kiev. In May, presidential elections brought Petro Poroshenko to power. A Western-friendly oligarch who had built his fortune on confectionary, his administration proved a controversial bulwark against the supposed expansionism of Putin. Ukraine's 150,000-man army would stand little chance should Russian forces directly intervene in the fighting. Thus his government permitted the incorporation of several militantly nationalist groups into the recently re-established National Guard that had been tasked with counter-insurgency. These included some decidedly unsavoury factions that had nonetheless played an important role during the Euromaidan protests.

Notable among these was Right Sector, whose ideology encompasses Christian fundamentalism, gun rights and homophobia. Early on it was claimed that Right Sector had come to the rescue of the pro-government Donbass Battalion: in May 2014, Right Sector had allegedly helped them escape when they became besieged by angry villagers while attempting to clear a separatist checkpoint in Karlivka, a village north west of Donetsk. Both the battalion and the Poroshenko government denied their involvement.

But the invocation of fascist or communist extremism has been an easy matter in a nation that was brutalised by both ideologies within living memory. That same month, the leader of the Donbass People's Militia, Igor Girkin – who is also known as Strelkov – called on the Russian Federation to provide military support “against NATO” and “genocide.”

A referendum, not recognised by Kiev, resulted in 89 per cent of the Donetsk and 96 per cent of the Luhansk electorate voting to break from Ukraine. By that time, fighting between government forces and separatists had convulsed Artemivsk, Sloviansk, Karamtorsk, Horlivka, Mariupol and several smaller towns.

In these cases, the separatists seized government buildings. On some occasions, police and soldiers defected to their side. On others, they were able to requisition large supplies of weaponry. Girkin's forces entered

27-28 February 2014

Pro-Russian gunmen seize government buildings in the Crimean capital of Simferopol. Gunmen appear outside the main airports in the peninsula. A ballot endorsing Russian rule is contested by Ukraine and the West.

7 April 2014

Protesters in the Russian-speaking east occupy government buildings in Donetsk, Luhansk and Kharkiv, calling for an independence referendum. Acting President Olexander Turchynov announces an ‘anti-terrorist’ operation aimed at recapturing rebel-held areas.

11 May 2014

Separatists declare independence in the Donbass region after a referendum that is not recognised by Kiev. The declarations of the Donetsk People's Republic (DPR) and Luhansk People's Republic (LRP) are supposedly endorsed by almost all of the electorate in both Oblasts.

25 May 2014

The EU-friendly oligarch Petro Poroshenko is elected president of Ukraine and vows to quell separatism in the east. Much of the east does not vote in the election.

5 July 2014

DPR fighters abandon their stronghold of Sloviansk as fighting comes close to the Russian border. Already, Ukrainian Airforce helicopters and planes have been shot down.

Sloviansk in April, for example, driving six armoured personnel carriers they claimed to have captured from the Army's 25th Airborne Brigade in Kramatorsk. When separatists raided the armoury in Artemivsk, it housed about 30 tanks.

From early on, Donetsk International Airport was the focal point of heavy fighting between the government and the separatists. On 26 May 2014, about 200 members of the pro-Russian Vostok Battalion captured the main terminal of the airport and set up roadblocks on the outskirts. Several dozen insurgents were killed before government forces were able to recapture the airport.

By late June, Ukrainian forces claimed to have cleared separatists from the southern and western sectors of Donetsk Oblast and northern sector of Luhansk.

By that time, Ukrainian troops, assisted by the National Guard, had retaken the key port city of Mariupol, which, with the rebels still holding Donetsk City, was designated as the capital of Donetsk Oblast. On 5 July, the towns of Sloviansk and Kramatorsk were retaken. But even as government forces bore down on Donetsk and Luhansk, the scale of the fighting was escalating.

The most obvious example had been the fighting around Yampil, a town held by several thousand rebels close to government-controlled Krasni Lyman. Government forces intended to take Yampil and push forward to rebel-held Siversk. On 19 June, they attacked Yampil with air and artillery strikes; although the insurgents admitted to a death toll in the hundreds, they did not withdraw for at least 24 hours and also claimed to have downed a Su-25 bomber.

As fighting raged close to the Russian border, the cause of Donbass seemed precarious – then in mid July, the conflict took a shocking new turn.

Flight MH17

None of the 15 crew or 283 passengers on Malaysia Flight MH17 could have imagined their fate as the Boeing 777 ascended from Amsterdam's Schiphol Airport on 17 July. The aircraft was the same model, ironically, that had vanished over the seas of South East Asia four months earlier.

En route to Kuala Lumpur, contact was lost with the pilot at 13.20 GMT about 50 kilometres from the Russia-Ukraine border. Footage soon emerged from rebel-controlled Donetsk showing wreckage and witnesses reported seeing bodies falling from the sky.

None of the crew or passengers, including 80 children, survived. Weeks passed before all the wreckage and bodies were removed, the work being hampered by fighting in the region. Eventually, a deal was done with the militias and investigating teams went in.

“As fighting raged close to the Russian border, the cause of Donbass seemed precarious – then in mid July, the conflict took a shocking new turn”



Pro-Russian fighters in Debaltsevo in February 2015

17 July 2014

Malaysia Airlines MH17 from Amsterdam is shot down near the Russia-Ukraine border with the loss of 298 lives, including 80 children. Russia denies accusations that they supplied the 'BUK' missile believed to have downed the aircraft.

22 August 2014

A huge 'humanitarian' convoy of Russian vehicles delivers aid to the besieged rebel-held town of Luhansk. Ukraine does not authorise the operation and later says a Russian invasion is under way.

28 August 2014

The DPR leader Alexander Zakharchenko says that at least 4,000 Russian civilians have joined the insurgents. Ukraine releases video footage of captured Russian paratroops.



5 September 2014

The Ukraine government and the insurgents sign a truce in Minsk but it is subject to many violations. Many Russian troops withdraw from the Donbass region.

21 October 2014

Human Rights Watch accuses Ukrainian forces of having used cluster bombs during attacks on the city of Donetsk. More Russian troops stationed near the border are ordered by Putin to return to their bases.



Pro-Russian rebels fire grad rockets on Ukrainian positions on 13 February 2015 in Debaltseve, Ukraine



The victims of flight MH17 are remembered

Just who shot down Flight MH17 has since become a matter of heated argument. US officials from the office of the Director of National Intelligence have concluded that the plane was “likely” downed by a Russian-supplied SA-11 missile, known as a ‘BUK’, while Moscow has placed blame at the feet of Ukrainian forces.

The Dutch Safety Board is currently leading an international probe, having already recovered the aircraft’s flight recorder. In July of this year, Malaysia pushed for the draft resolution of an international tribunal into the fate of the aircraft to be put before the UN Security Council. Only one of the 15 council members used its veto to block the resolution: Russia.

Russian intervention

The ill-fated MH17 was not the first aircraft to be blown out of the skies. On 14 June, a Ukrainian Airforce Ilyushin Il-76 was shot down while attempting to land troops and supplies at Luhansk Airport, killing all 49 aboard. More and more sophisticated weapons were appearing on the battlefield, including big guns and advanced missile systems.

Although Putin denied involvement in Donbass, Russian ‘volunteers’ were increasingly appearing on the battlefield. They have not been the only foreign fighters reported in the region: Don Cossack, Chechen, Ossetian and Abkhazi paramilitaries have been seen at such battle sites as Donetsk Airport.

On 27 August, after two columns of Russian tanks crossed the border, Ukraine’s Foreign Minister called the conflict an invasion by Russian forces. NATO later verified that troops from the 76th Guard Air Assault entered that month and other evidence emerged in the ensuing months: in January 2015, for example, a Russian BPM-97 armoured personnel carrier was filmed in Luhansk.

But ‘voluntary’ or not, the presence of Russians in Donbass marked the beginning of a reversal of the separatists’ fortunes. After coming close to defeat, DPR and LPR forces

“Although Putin denied involvement in Donbass, Russian ‘volunteers’ were increasingly appearing on the battlefield”

were able to recapture many of the strongholds established during April and May.

The Russians have often fought without quarter. In September, following their abandonment of the town of Ilovaisk, Ukrainian forces were reportedly attacked by Russian forces while travelling through a ‘green corridor’ arranged for their retreat. According to Ukraine’s military, hundreds were killed.

Two attempted peace ‘protocols’ called Minsk I (5 September) and Minsk II (11 February) sought to implement ceasefires and demilitarisation in the region during 2014-15. They were signed after extensive talks in Belarus and brokered by the Organisation for Security and Co-operation in Europe. Both were repeatedly violated. By late September, a second battle broke out at Donetsk International Airport and this time the DPR were victorious. Within a week of Minsk II, Ukrainian forces abandoned Debaltseve, an important road and rail junction on the eastern edge of Donetsk. The battle left dozens dead or missing on both sides.

At present, although there are skirmishes along both sides’ lines of control, there have been no changes of territory since June.

Frozen conflict

The military deadlock in Donbass may reflect a wider political impasse. Russian troops are believed to be ready for a large-scale conflict and there are about 40,000 troops in Rostov Oblast. A possible future target could be the port of Mariupol, which has large metallurgical plants and provides access to the Sea of Azov.

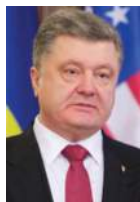
From Putin’s perspective, it makes sense to establish a land corridor to the Crimean region, which is now sunk in recession, afflicted by inflation and collapsed investment. But according to two US studies, Russia would need to set aside nearly 150,000 troops to do this. Given that the Russian armed forces consist of 750,000 soldiers, this is unlikely.

Putin may feel frustrated that Poroshenko’s government hasn’t fallen. Russia risks more sanctions being imposed with further action and the war has done the economy no favours: by December 2014, the ruble had fallen by 40 per cent. But the options for the Ukrainians are also limited.

Poroshenko is relying on links with the West; the IMF and EU have offered billions in aid but these are dependent on political reforms. Politically, he will gain little at home from a conciliatory approach that tacitly concedes power to Russia in Crimea or recognises some form of limited self-rule in Donbass. He will certainly be badly imperilled by another military defeat on the scale of Debaltseve. The conflict looks unlikely to end soon: the historic fault-line could trigger dangerous earthquakes.

3 November 2014

Elections in the east take place but are condemned as bogus by Poroshenko. The polls are condemned by the West but backed by Russia.



11 February 2015

Second Minsk Protocol is signed but fighting continues. DPR fighters capture Donetsk International Airport, which is almost completely destroyed after weeks of fighting. Ukrainian forces abandon the eastern town of Debaltseve.



3 June 2015

DPR insurgents attack government-held Marinka and briefly hold part of the town before being expelled by Ukrainian forces. Artillery and tanks are used in the battle.

31 August 2015

One member of the National Guard is killed in clashes with right-wing nationalists outside Kiev’s parliament as MPs vote on plans to give autonomy to the Russian-speaking east.

THE DIVINE WIND OF DEATH

A kamikaze attack on carrier USS Belleau Wood off the coast of Luzon left a fire that killed 92 crewmen



THE DIVINE WIND OF DEATH

Inside the culture of sacrifice and nationhood
behind Japan's kamikaze pilots

WORDS MIGUEL MIRANDA

They called it the Pacific War. Barely three years after the spectacular success at Pearl Harbor, the Imperial Japanese Navy (IJN) was on its last legs. From Midway to Palau, Japan suffered losses – carriers, cruisers, submarines, planes and men – that couldn't be replaced even with the utmost effort to maximise industrial production.

In the last quarter of 1944, any remaining hope for victory over the Allies was brutally quashed. On 12 October, US Army aircraft clashed with the Japanese planes stationed on Formosa, and more than 300 Japanese planes were lost, denying air cover for the garrisons in the Philippine Islands.

The latest intelligence revealed that a vast American armada was steaming towards Leyte Gulf unopposed. There weren't enough combat aircraft to block an amphibious landing, and it would take days before two flotillas that had been sent from Singapore and Japan arrived. Desperate times, as the saying goes, called for desperate measures.

On 17 October, the same day the US Sixth Army began its assault on Leyte, Vice Admiral Takijiro Onishi set foot in Luzon, the Philippines' main island. The brash air-power advocate who once lobbied for an all-carrier IJN fleet was taking command of the battered 1st Air Fleet based in Mabalacat Airfield.

A week later, on the morning of 25 October, Japanese A6M Zeros from the 201st Air Group came in low and fast over Leyte Gulf. The previous day's missions had been difficult and inconclusive, but now the sun was out and the American carriers were exposed just off Tacloban, Leyte's capital.

These were escort carriers – basically large hulls supporting broad wooden decks loaded with fighters. They were first used in the Atlantic to hunt U-boats; in the Pacific, they became indispensable for air cover during landings. Escort carriers were so prolific that US shipyards built more than 120 of them, and they were in production until the war's end.

The Zeros each carried a 500-pound bomb and pilots were determined to sink their targets even as the tracers from incoming AA guns menaced them. The squadron leader, Lieutenant Yukio Seki, was killed together with his men, their planes blown to fiery bits.

However, Lieutenant Seki was skilled enough to crash his plane on the USS St Lo's runway, his payload detonating below deck. It was a nightmare to behold: acrid black smoke engulfed the flat top as its crew abandoned ship. St Lo took 113 men with it to the bottom of the sea. Its sister carriers USS Santee, Kitkun Bay and Suwannee suffered hits too. This was a shocking new type of war.

**“IF ONLY WE MIGHT FALL
LIKE CHERRY BLOSSOMS IN THE SPRING –
SO PURE AND RADIANT!”**

– Haiku of an unknown kamikaze pilot

TRAINING FOR THE TOKKO TAI

BY EARLY 1945, THOUSANDS OF YOUNG MEN WERE BEING RECRUITED AND 'VOLUNTEERED' FOR A CAMPAIGN OF UNRELENTING AERIAL SUICIDE ATTACKS

With the Philippine Islands lost, Japan's generals and admirals were worried about an impending American sprint across the Pacific toward the mainland. To thwart this possibility, they envisioned dedicated special attack squadrons of suicide aircraft called 'tokubetsu kôgeki tai' or 'Tokko Tai' for short.

Tokko Tai formally became a new branch of the Army and Navy Air Corps in March 1945, after US forces captured Iwo Jima. The concept of suicide flights really began with an experimental weapon, the Ohka, but officers like Vice Admiral Onishi showed how planes excelled at the same role. It was during the battle for Okinawa that US intelligence picked up a new term from Japanese propaganda broadcasts: kamikaze. It recalled the tempest that annihilated Kublai Khan's invasion of Japan in the 13th century.

Young men, with or without flying experience, were given the choice to volunteer for the Tokko Tai if they were already enlisted. Many others, usually undergraduates still in university, were drafted. On multiple occasions, officers who volunteered were denied simply because their skills would be put to better use training the would-be kamikazes. Tokko Tai pilots weren't brainwashed to venerate death, however. It was made perfectly clear their actions were a last resort. At its peak in the summer of

1945, Tokko Tai pilots were only given 30 hours of flight training in airfields outside the town of Chiran, in Kagoshima Prefecture.

If a mission was aborted, the Tokko Tai manual instructed that a pilot "should be jovial and without remorse" upon his return. Tokko Tai pilots flew with no special equipment or designation. Before flying, they scribbled a haiku, sipped from a cup of whiskey and tied a white hachimaki round their heads.

The excellent A6M Zero manufactured by Mitsubishi Heavy Industries, along with many older planes, was used indiscriminately in the Philippines and Okinawa. The ideal kamikaze tactic was to skim the waves as they neared an American warship. The coup de grace was to climb and then dive towards the area between the bridge and the smokestacks. In their last seconds of consciousness, it was suggested that pilots scream "hissatsu!" (meaning 'certain kill') to hasten a doomed ship's destruction.

Sentimentality also mattered for Tokko Tai pilots. Their manual told them to remember their mothers as they perished. Upon dying, they were assured "all the cherry blossoms at Yasukuni shrine in Tokyo will smile brightly at you." In practice, hundreds of kamikazes were lost crashing into the water rather than their intended targets.



Members of 72nd Shinbu Squadron. They flew kamikaze attacks the next day

THE FATHER OF KAMIKAZE

TAKIJIRO ONISHI WAS A VETERAN PILOT CREDITED AS THE FIRST OFFICER TO ORGANISE A SUCCESSFUL SPECIAL ATTACK ON ALLIED FORCES

Born in Hyogo Prefecture on 6 June 1891, Takijiro Onishi's life coincided with the rise of Imperial Japan. Detailed biographies about him are very scarce and few go beyond crediting Onishi as the 'Father of Special Attack'. This supposedly originated from an unconventional tactic he explained to subordinates for crippling a US Navy aircraft carrier – by crashing a bomb-laden plane into it.

He was one of the first IJN fighter aces during the Second Sino-Japanese War (1937-45). A staunch patriot, Onishi also believed that it was unsound for Japan to wage war on the United States of America. Despite this, he is recognised as one of the planners behind the surprise attack on Pearl Harbor. Some kamikaze writers suggest Onishi was introduced to the concept of self-sacrifice among Japanese pilots in either 1943 or early 1944.

By the time he arrived in the Philippine Islands, Onishi had new orders – from exactly who is unknown – to organise a Special Attack operation using the squadrons of the 1st Air Fleet.

Like many of his peers, Onishi harboured serious doubts about the effectiveness of Special Attack tactics. It was particularly disturbing for an officer with his background, given his expert grasp of modern air combat.

Onishi kept his misgivings to himself. Like the rest of the IJN in 1944, he was gripped by a determination to do anything for the Japanese cause, more so with the Allies drawing near in ever greater numbers.

Onishi's personal conduct during the campaign to reconquer the Philippine Islands is unknown. But the Tokko Tai tactics he devised were still being carried out well into 1945 by IJN holdouts in the Philippines, with disappointing results. Back in Tokyo, Onishi knew, at least privately, that Special Attack tactics were squandering lives.

The architect of kamikaze met a terrible end. Hearing of the emperor's surrender message over the radio, the disheartened Onishi committed seppuku, or ritual suicide. But in a macabre twist, he was found a day later, on 16 August, writhing in agony. Having disembowelled himself with a knife, he was unable to slit his throat and refused a swift decapitation from a second. He lingered for hours before finally dying.

"HE WAS GRIPPED BY A DETERMINATION TO DO ANYTHING FOR THE JAPANESE CAUSE, MORE SO WITH THE ALLIES DRAWING NEAR"

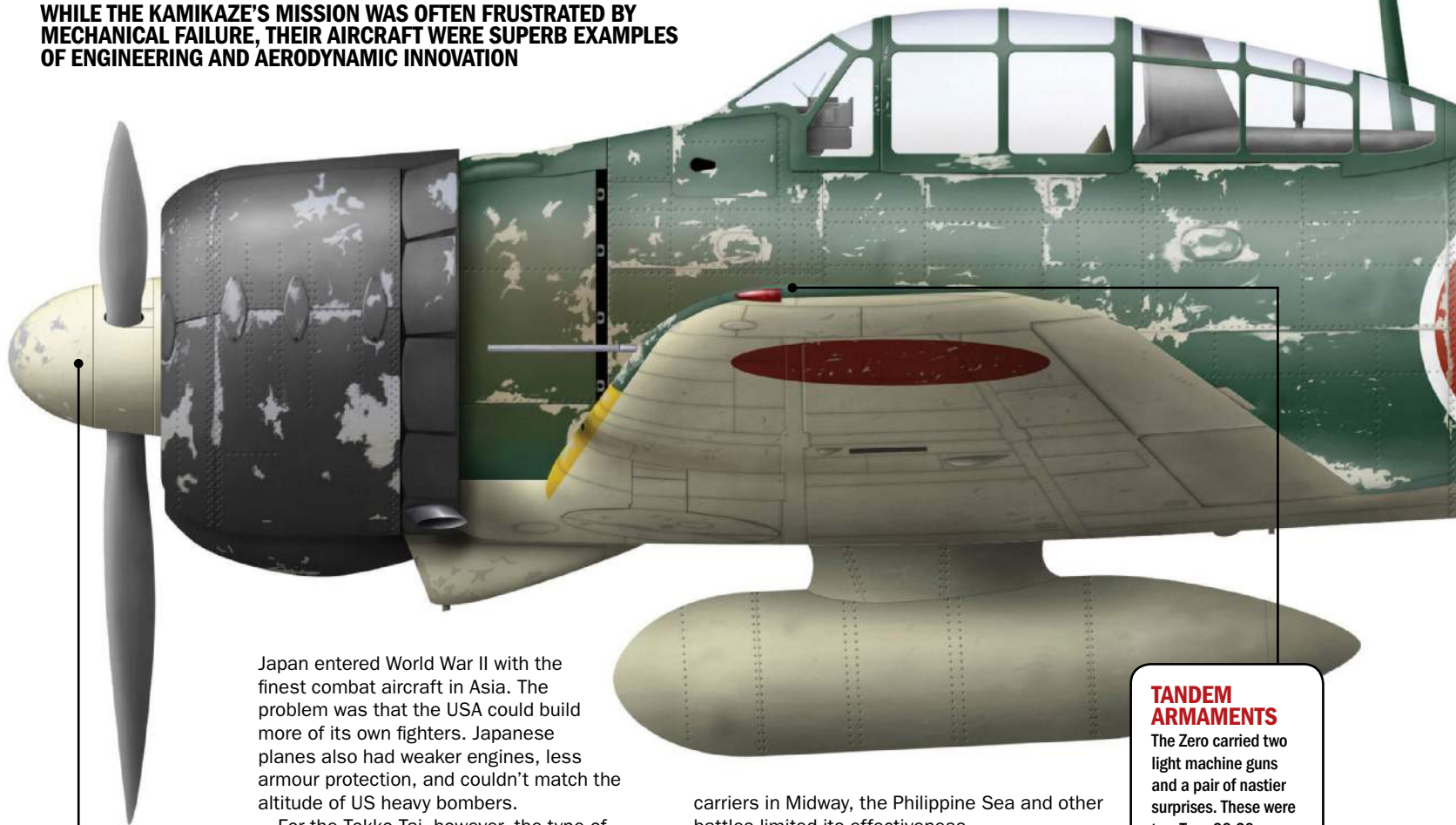
Takijiro Onishi was responsible for some of the technical details of the attack on Pearl Harbor

Before taking to the skies, Tokko Tai pilots donned a cotton hachimaki bandana as a symbol of their individual determination



MACHINE OF DEATH

WHILE THE KAMIKAZE'S MISSION WAS OFTEN FRUSTRATED BY MECHANICAL FAILURE, THEIR AIRCRAFT WERE SUPERB EXAMPLES OF ENGINEERING AND AERODYNAMIC INNOVATION



THE IMPERIAL CHAMPION

Entering production in 1940, the A6M Reisen or Zero became notorious in China for defeating any aircraft that flew against it. During the months after Pearl Harbor, it continued winning dogfights against many Allied planes it faced in the air.

Japan entered World War II with the finest combat aircraft in Asia. The problem was that the USA could build more of its own fighters. Japanese planes also had weaker engines, less armour protection, and couldn't match the altitude of US heavy bombers.

For the Tokko Tai, however, the type of aircraft wasn't always important. The plan, drawn up at Tachiarai Joint Service Flight School outside Chiran as well as in other nearby airfields, was to deploy as many Special Attack formations as possible.

In 1945, there was still enough A6M Zeros left for use in kamikaze missions. Hundreds of the older A5M fighters were co-opted for the missions as well. Designed by the inventor and engineer Jiro Horikoshi in the late 1930s, the Zero was a lightweight marvel with superb manoeuvrability and an excellent 14-cylinder 1,130 horsepower engine.

At the beginning of Japan's Pacific War, the Zero proved its superiority over American rivals like the F4F Wildcat. More than 10,000 Zeros would be built, but the gradual loss of IJN

carriers in Midway, the Philippine Sea and other battles limited its effectiveness.

The advent of Tokko Tai tactics marked the Zero's undoing. With insufficient armour plating, countless numbers of them were blown to bits as they approached US warships. The IJN Air Corps officers used aircraft like ordnance and cared little for keeping their planes airworthy. This, along with diluted aviation fuel supplies, explains the high rate of failure among Special Attack missions.

Once a Tokko Tai pilot was selected and trained, his plane was given enough fuel to reach the area of operations. A single 500-pound bomb was loaded along with ammunition for the twin 7.7mm machine guns and 20mm cannons. Barring a mid-air crash or an accident, the Tokko Tai pilot embraced his end as he flew to his target.

TANDEM ARMAMENTS

The Zero carried two light machine guns and a pair of nastier surprises. These were two Type 99 20mm cannons, one on each wing. Based on the Swiss Oerlikon, the Allied ships also used the same gun on incoming Zeros.

Below left: Zeros prepare for takeoff to take part in the first wave of the attack on Pearl Harbor

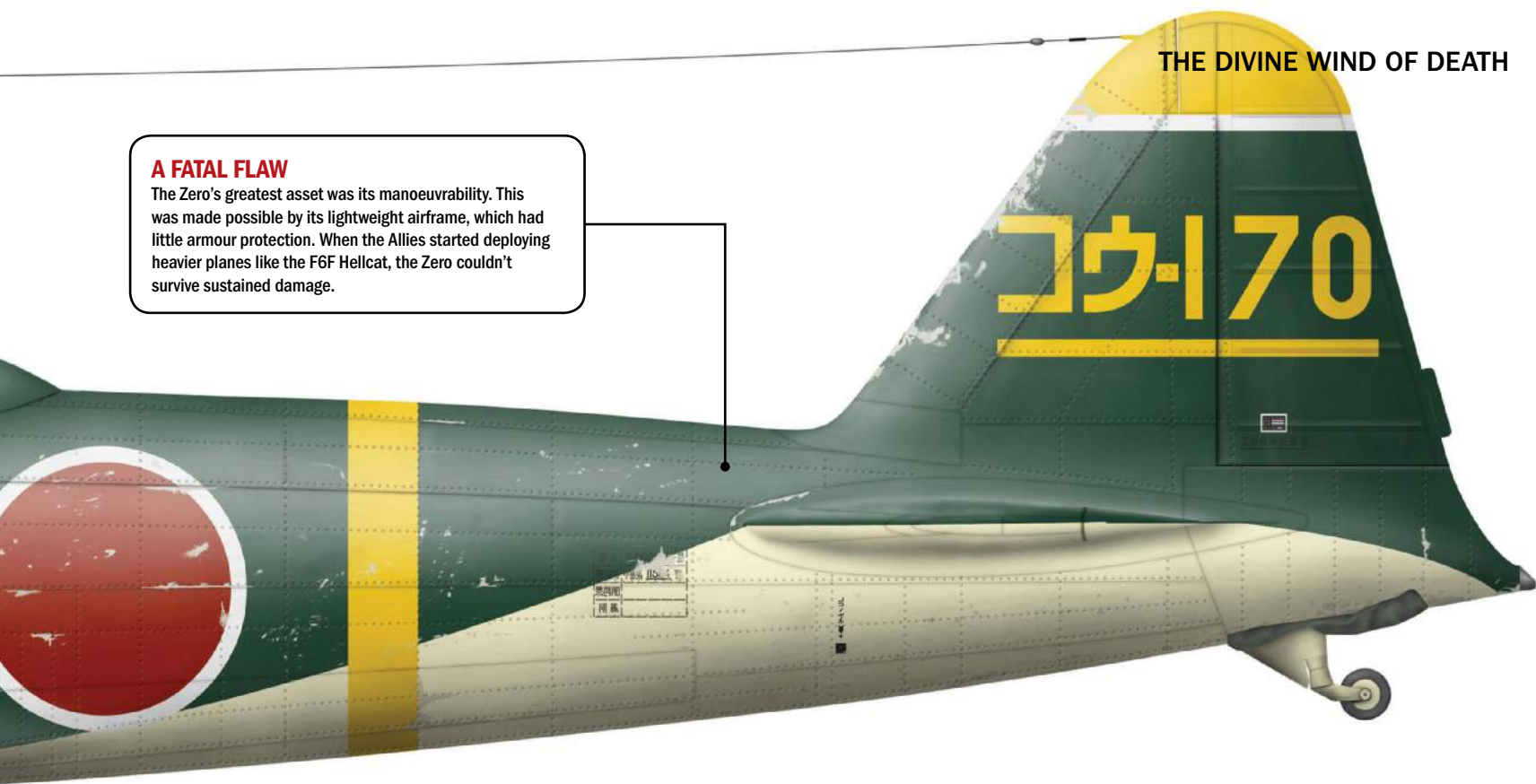
Below centre: The one-man cockpit of an A6M5 Zero Model 52

Below: A Mitsubishi A6M2b Zero from the Zuikaku Aircraft Group during the attack on Pearl Harbor



A FATAL FLAW

The Zero's greatest asset was its manoeuvrability. This was made possible by its lightweight airframe, which had little armour protection. When the Allies started deploying heavier planes like the F6F Hellcat, the Zero couldn't survive sustained damage.



A FINAL FLIGHT

MOST TOKKO TAI PILOTS WERE DETERMINED TO KILL THEMSELVES, BUT ON ONE OCCASION, FATE HAD OTHER PLANS FOR AN UNLUCKY FLIER

For thousands of American sailors and pilots, thwarting the incoming kamikaze was a living nightmare. Surviving the experience naturally inspired a curious regard for the Japanese who seemed so eager to vanquish them. Soon after the war's end, a story ran in *Yank*, the US Army's

weekly news magazine, about the experiences of a genuine kamikaze pilot. Contrasting the often one-dimensional and racist depiction of Japanese servicemen, the profile of Norio Okamoto tackles its subject matter with a little humour.

Okamoto fit the profile for a Tokko Tai candidate. A 23-year-old flight instructor wanting to avenge a brother killed on Formosa, he volunteered with grim enthusiasm. Okamoto then revealed a rare courtesy extended to Tokko Tai pilots. Before their deployment, they were allowed to write a short

letter home. He wrote to his parents for delivery after he died.

But he was soon disappointed by his treatment at the hands of the Tokko Tai officers. Not that he was abused or maligned, rather Okamoto was forced to endure lectures about the virtues of ancient samurai and sent off on "an old sea plane."

Okamoto crashed halfway to Okinawa due to engine failure and was stranded at sea with his navigator, who perished in the shark-infested waters. After hours afloat, he reached an island inhabited by suspicious natives deathly afraid of US air strikes. He was well fed and sat out the war until its end.

Interestingly, Okamoto didn't mind helping himself to boxes of American C-rations that floated ashore. He wasn't bitter towards his country's occupiers either. Okamoto aspired to become a trader of imported merchandise.

Numerous accounts of Tokko Tai pilots and their experiences have been published since 1945; just as many films and documentaries are released based on their memoirs. But not all recollections were as light-hearted as Norio Okamoto's.

For Warrant Officer Shoichi Ota, who carried out the doomed Ohka programme with its emphasis on a manned bomb, the stigma of being involved in Special Attack activities was too much to bear.

A rumour spread that he crashed a plane into the sea after Japan's surrender. It turned out that he changed his name during the Allied occupation of Japan and raised a family, putting his past behind him. He never spoke about his role during the war until he became unwell in his old age. Shortly before his death in 1995, he finally confessed to his son.

Grim proof of Onishi's handiwork. Once Tokko Tai missions began in October 1944, any large Allied ship was fair game



STATE SHINTO AND THE GOD EMPEROR

WHAT WERE THE UNDERLYING REASONS BEHIND JAPAN'S CULT OF SELF-SACRIFICE AND WHY DID SO MANY YOUNG MEN ACCEPT THEIR ROLE AS KAMIKAZES?

There are still many false assumptions surrounding the kamikaze of World War II. Most striking is the belief that it was embraced by the IJN as a credible strategy. For Tadanao Miki, an engineer tasked with building the Ohka flying bomb (dubbed the 'cherry blossom'), the idea was bizarre when first mentioned to him. What made its practice widespread, especially during the Okinawa campaign, was the profound sense of duty among Japanese servicemen and citizens. This is why personal appeals by the emperor together with rosy propaganda inspired so many volunteers. It was certainly ignoble death, but it was for a higher cause.

Japanese soldiers, being patriotic to the core, weren't obsessed with dying either. Death in battle was a last resort and many kamikazes who survived the war admitted a reluctance to squander their lives.

Although Japan's samurai heritage is often pointed out as an inspiration for suicidal actions in battle, it's quite ironic that the samurai ideal of 'bushido'

in its classical sense wasn't immediately intertwined with the conduct of kamikaze pilots. When the Yasukuni shrine was erected in Tokyo in 1869, the final year of the Meiji Restoration that replaced the Tokugawa Shogunate, Japan slowly shed its feudal system and its values. Instead, Yasukuni represented Japan's newfound modernity and the emperor's place in it.

After a Prussian-influenced constitution was adopted in 1898, a deference for state institutions began to mould the national character. This meant total obedience to the emperor, whose divine mandate imbued the government, the military, the university and civil society with an overwhelming importance above the needs of any individual.

This state of mind was reinforced by powerful symbolism, like the 16-petal chrysanthemum, the Imperial seal, and a call to obedience used as an emblem by the Japanese Army and Navy.

Japanese servicemen began sacrificing themselves as soon as the tide began to turn against their country. The critical moment was the arrival of American long-range bombers in 1944. Unable to defeat American B-29s with machine guns, remote incidents of fighter pilots ramming their planes began to warrant notice.

A growing awareness of Japan's vulnerability influenced the suicide ideal among the officer class. With the tacit endorsement by the Japanese high command, those responsible for the Ohka flying bomb programme and willing officers in the IJN Air Corps soon organised a genuine suicide force despite its low chances of success.

Below: Kamikaze pilots at the Imperial Japanese Chiran air base in Chiran, Kagoshima, toast cups of sake before departing on their Tokko Tai missions

A human deity who lived in secluded splendour, Emperor Hirohito is believed to have secretly approved of the Tokko Tai program



THE CHERRY BLOSSOM TAKES FLIGHT

LIKE A CRUDE EXOCET, A RESOURCE-POOR JAPAN MANAGED TO BUILD A VIABLE ANTI-SHIP MISSILE. BUT COULD IT TURN THE TIDE?

As early as 1943, the Aeronautical Research Laboratory was tasked with developing a rocket-powered 'flying bomb'. In or before August 1944, Warrant Officer Shoichi Ota told a befuddled Lieutenant Commander Tadanao Miki that in lieu of a guidance system, his team should just install a cockpit on the MXY7 Ohka, the primitive cruise missile they referred to as cherry blossom.

The suggestion launched the Divine Thunder God Corps, the IJN's newest elite unit and the original Tokko Tais. The Thunder Gods were supposed to steer their missile, which was packed with 2,600 pounds of explosive, to a target after being dropped in mid-air by a 'mother ship' – a bomber.

There was precious little time to organise, train and equip the Thunder Gods for their deployment. The first batch of Ohkas were supposed to be deployed in the Philippine Islands in 1944 but their transport, the aircraft carrier Shinano, was sunk by an American submarine.

The largest Thunder God mission involved a flight of 18 G4M medium bombers heading for Okinawa. The formation was intercepted by US



Air crew relax in front of a Mitsubishi bomber loaded with an MXY-7 Ohka plane

warplanes and destroyed. Later in the Okinawa campaign, a single Ohka reportedly managed to target the destroyer USS Mannert L Abele and sink it.

The concept behind the Ohka might have been futuristic, but these cherry blossoms

repeatedly failed their missions. When US forces seized production models of the Ohka on 1 April 1945, they re-christened it the Baka – Japanese for 'stupid'. Maybe because it was April Fool's Day, or perhaps the idea of a piloted bomb was too silly to comprehend.

“THE THUNDER GODS WERE SUPPOSED TO STEER THEIR MISSILE, WHICH WAS PACKED WITH 2,600 POUNDS OF EXPLOSIVE, TO A TARGET AFTER BEING DROPPED IN MID-AIR BY A ‘MOTHER SHIP’ – A BOMBER”

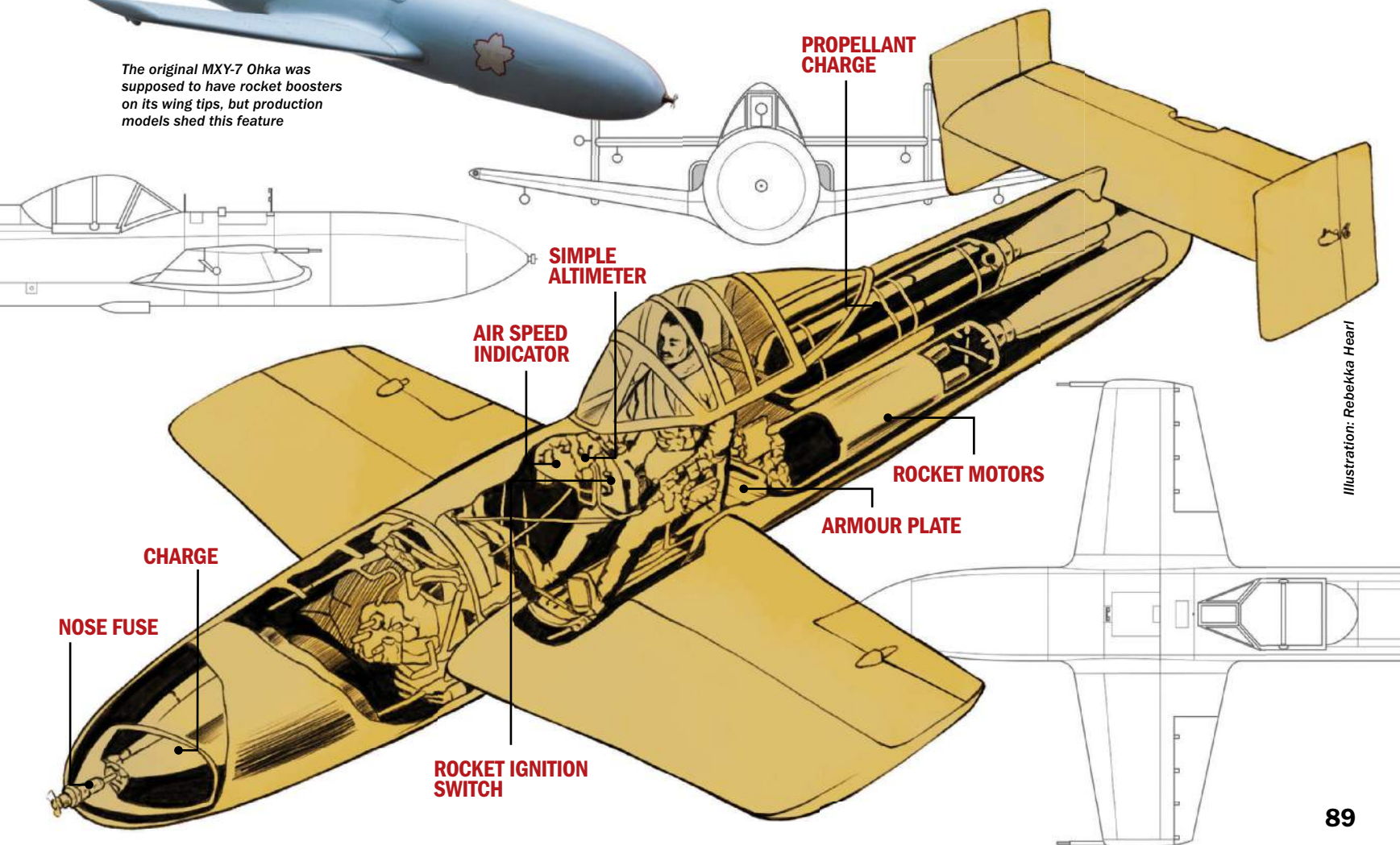


Illustration: Rebekka Hearl

CRACKING THE AIR LIKE THUNDER

FOR ALLIED WARSHIPS AND THEIR CREWS, THE LAST AND ONLY LINE OF DEFENCE FROM FANATICAL KAMIKAZES WAS GOOD OLD-FASHIONED FLACK

The Special Attack proved more ineffective the more it was used. Since the kamikazes were only used en masse in two campaigns – Leyte Gulf and Okinawa – a specific doctrine was never developed by the US Navy and Air Corps to counter them. Most kamikaze missions failed anyway, thanks to poorly maintained aircraft, shoddy training, and a far more lethal factor: US gunnery.

By 1945, US warships were equipped with incredible anti-air and anti-submarine weapons. The former included radar-assisted guns, AA gun batteries and rapid-fire cannons. Most effective were the twin 40mm Bofors mounted in nests on US Navy destroyers, carriers and transports. These ack-ack guns filled the air with flack at medium ranges.

If a lone kamikaze got too close, a 20mm Oerlikon or tandem .50-calibre machine guns

would blow it to pieces. Just as vital was US Navy air cover for blowing up any incoming suicide planes.

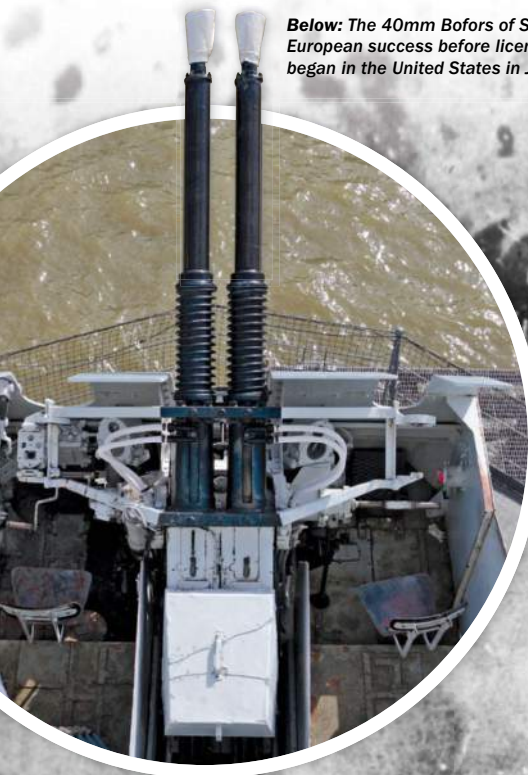
By the time Okinawa was firmly under American control, it proved to be the costliest battle in the Pacific Theatre. A total of 2,363 kamikaze attacks between October 1944 and 21 June 1945 left more than 5,000 US and Allied dead.

Approximately 40 Allied ships of all types were sunk. An additional 368 were damaged. A little more than a month after Okinawa, atomic bombs levelled Hiroshima and Nagasaki. Japan surrendered on 15 August. The last kamikaze squadrons were disbanded and the once-doomed pilots lived on to demobilise for peacetime. 70 years since, the kamikazes' notoriety remains a potent symbol of Japanese fighting spirit during World War II.



The US Navy's four-barrel 1.1-inch or 28mm cannon was a crude close-in weapons system that spewed hot lead at 600 rpm

Below: The 40mm Bofors of Sweden was a European success before licensed production began in the United States in June 1941



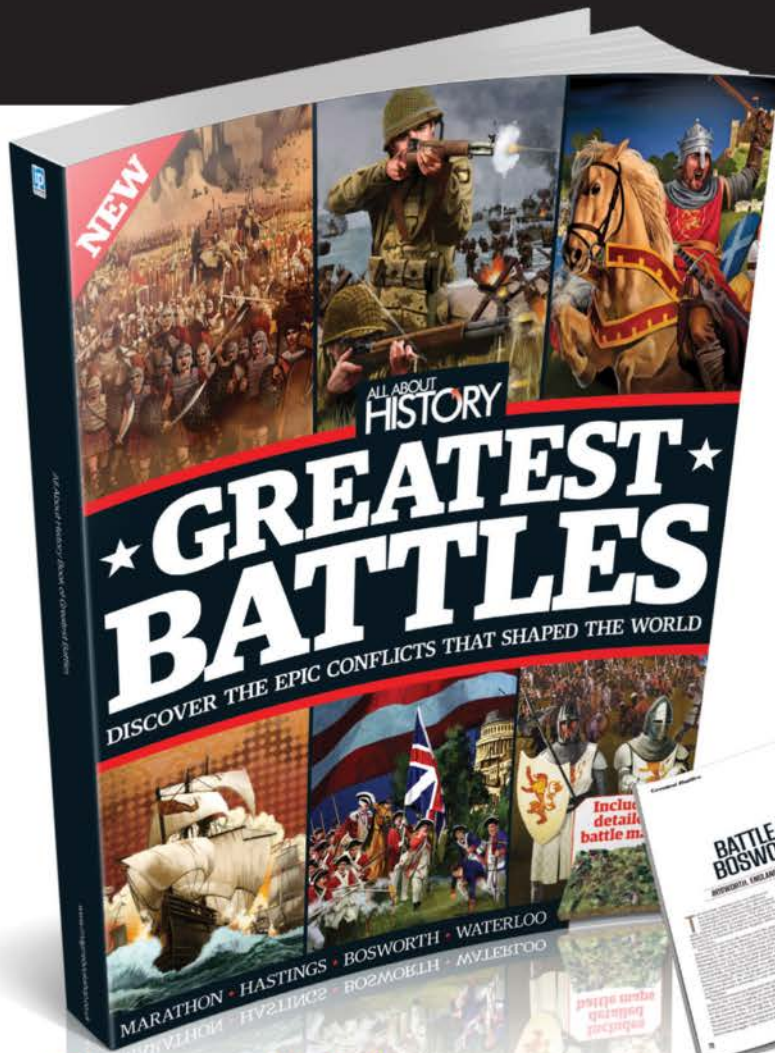
**"IN BLOSSOM TODAY, THEN SCATTERED;
LIFE IS SO LIKE A DELICATE FLOWER.
HOW CAN ONE EXPECT THE
FRAGRANCE TO LAST FOREVER?"**

- Admiral Takijiro Onishi

This image, moments before a kamikaze's impact, shows how Japanese pilots targeted aircraft carrier elevators at an impossible angle



From the makers of **HISTORY WAR**

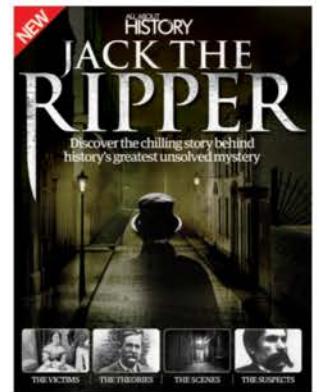
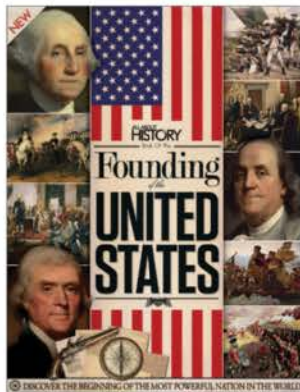
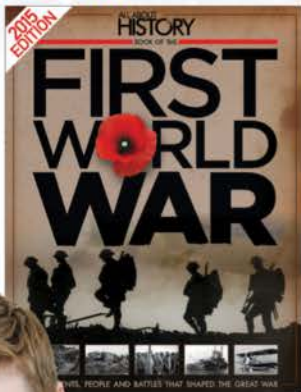
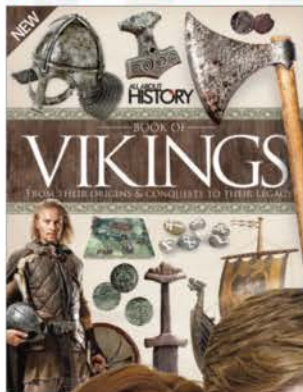


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ONCE MORE UNTO THE BREACH... THE 600TH ANNIVERSARY OF AGINCOURT INSPIRES YET ANOTHER BOOK, BUT THIS TIME FROM A UNIQUE ANGLE

Trafalgar, Waterloo, Balaclava... these place names may have exotic origins but, because of the battles fought there, all are now quintessentially English words weighted with meaning. Despite the relative insignificance of Henry V's victory over the French near Azincourt castle in 1415, it is the name Agincourt that rings out loudest through history.

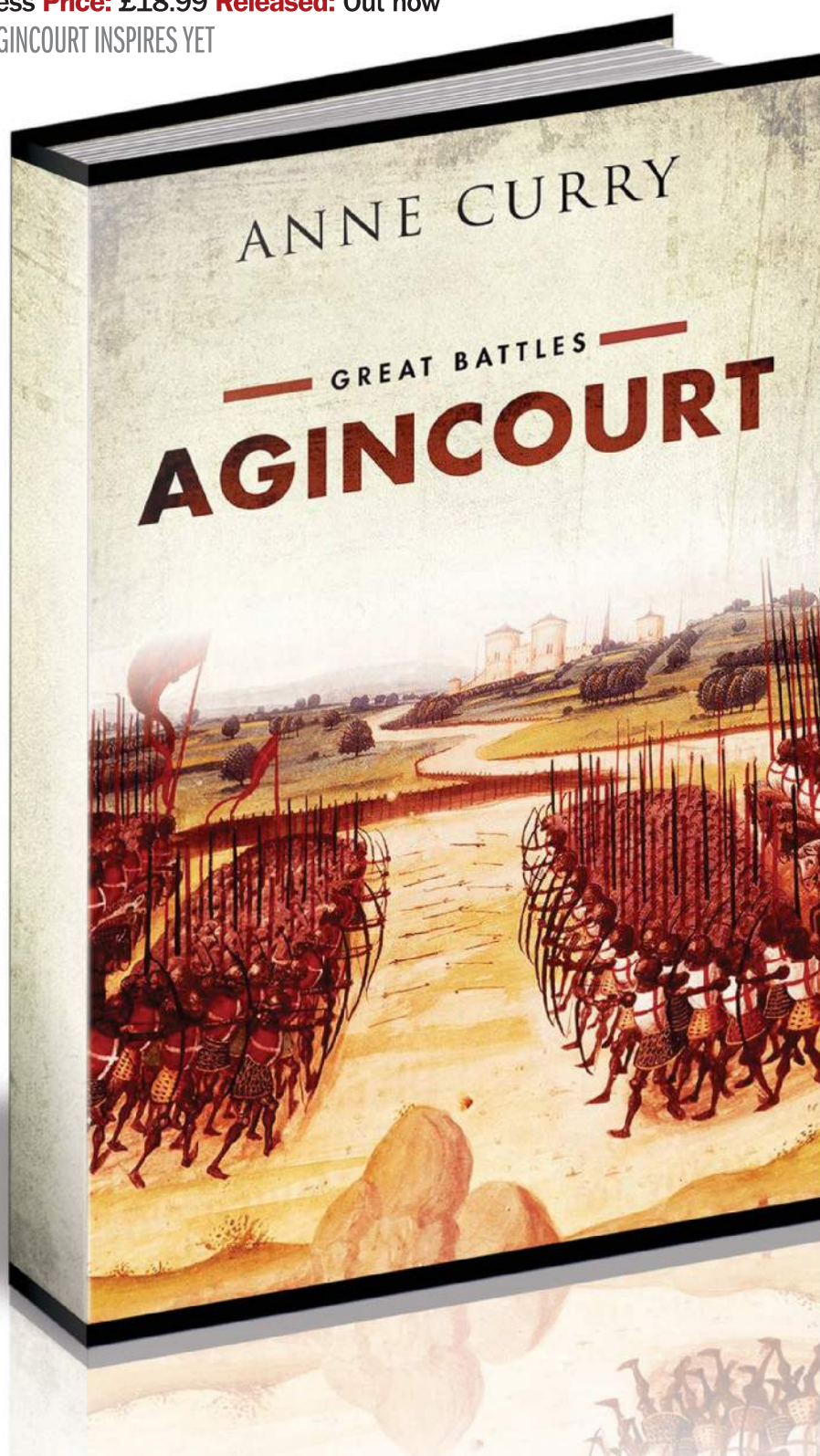
In Anne Curry's wonderfully accessible book about the battle, she explores not only the truth about the clash itself using contemporary sources, but just how it has come to play such a significant role in English culture ever since. Along the way she debunks some glorious myths – alas the origins of the classic two-fingered salute wasn't a defiant gesture created by the English archers – while shoring up others that sounded like later embellishments from a poet's pen. The sky really was black with arrows that day apparently, while the king himself really could deliver a rousing team talk to his troops.

According to Curry, part of Agincourt's resonance through the ages seems to have been down to Henry's particularly fine grasp of PR. He was swift to take political advantage of his victory, sending out a loud message across Europe and at home that he wasn't a man to be messed with and that God was on his side. But it was undoubtedly the contribution of a certain Mr W Shakespeare that has done the most to confirm Agincourt in the English imagination as an inspiring tale of overturned odds.

Shakespeare's *Henry V* was written at a time when England was involved in a protracted conflict with Spain and was steeling itself for what would be a messy conflict in Ireland. The rousing speeches that pepper the play were intended by Shakespeare to fire up his audience's spirits in a time of darkness. As England is a country that's been at almost perpetual war ever since, it is not surprising that the play's speeches and sentiments have frequently resurfaced. The most famous example, of course, being Laurence Olivier's filmed version of the play during World War II.

A full 600 years after the last arrow was fired, Agincourt is still a mainstay of English national identity and can even be seen as an original cornerstone of patriotic pride. By exploring English history from a truly intriguing angle, Curry's insightful book shows us how the myth of Agincourt, harnessed by jingoism, has been used to convince the country on repeated occasions of its own invincibility. Fascinating stuff.

“Alas the origins of the classic two-fingered salute wasn't a defiant gesture created by the English archers”



Writer: Karen Farrington **Publisher:** Aurum Press **Price:** £18.99 **Released:** Out now

THE BLITZED CITY

THE DESTRUCTION OF COVENTRY, 1940

A THOROUGH ACCOUNT OF HOW A PROVINCIAL BRITISH CITY BECAME THE TESTING GROUND FOR A NEW KIND OF WARFARE

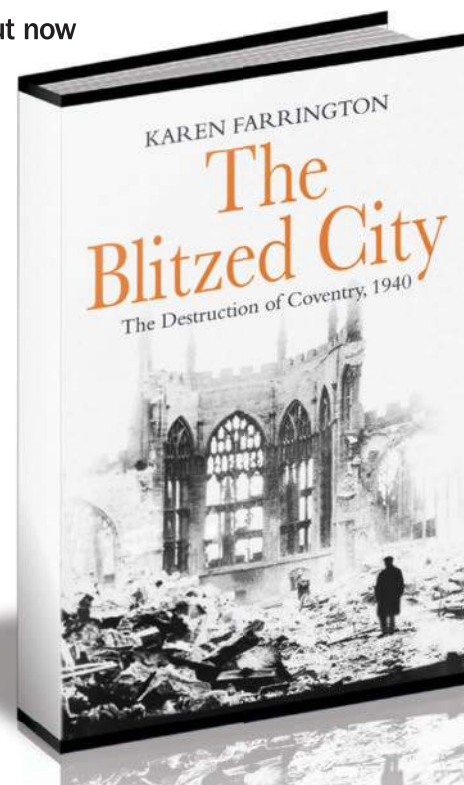
By the time World War II ended, it had served up innumerable atrocities on an unprecedented scale. With its gas chambers and atomic bombs, it was the first truly total war, and one of the first indications of what that meant came in November 1940 with the bombing of Coventry.

Cities had been bombed from the air before of course. Zeppelin raids had hit London during World War I; Guernica and Barcelona had both been struck by bombers during the Spanish Civil War; while Warsaw had been terrorised from above when Hitler ordered the invasion Poland. What made the bombing of Coventry different, however, as Farrington points out in her hugely readable account of it, was that it marked the moment when aerial bombing became a weapon of mass destruction. Her book begins with a brief history of Coventry, explaining how its position in the industrialised East Midlands put it at the heart of the British war effort and consequently on the front line. The narrative

then sweeps through the build up to war and its early days, switching between the fighting on the continent and the changing life of Coventry's citizens as the storm clouds draw ever closer. The effect works well. We're fed a decent potted history of events that provide a good backdrop for what is to come – the bombing – while an impending sense of disaster brews ominously.

The raid comes about a third of the way into the book. Throughout, Farrington has used first-hand accounts to help paint her canvas, but it's here that those testimonies really come into their own. She provides a real sense of the terror the raid caused, as Coventry's citizens huddled in claustrophobic shelters or toiled in the burning streets to save lives. There is also a real sense of the bewilderment the raid's survivors felt when the smoke cleared and they saw that most of their "Medieval gem" of a city had vanished.

Coventry wasn't destroyed completely, though, and the latter part of the book uses the same weave of historical master narrative and first-hand accounts to show how both Coventry recovered and Britain responded to the atrocity. The raid was used by Churchill

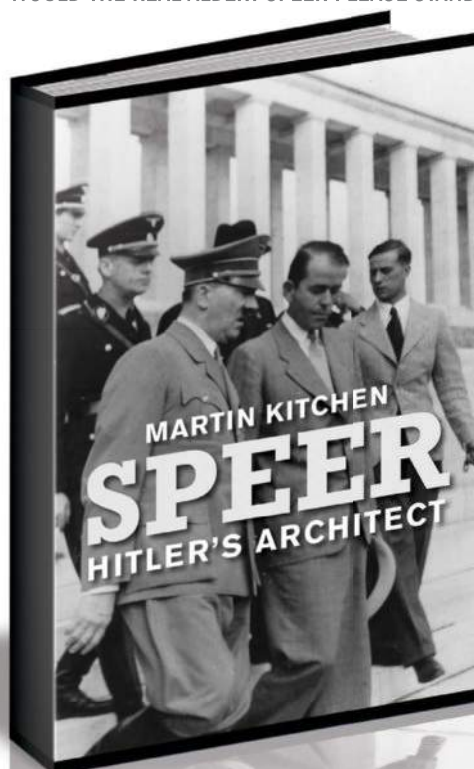


first for propaganda purposes, helping to propagate support in the then-neutral USA, and then as an excuse to unleash Britain's own bombing offensive. As RAF Bomber Command boss Arthur Harris put it at the time: "[The Nazis] sowed the wind. They'll now reap the whirlwind." So they did – again and again – with appalling consequences in Berlin, Hamburg, Cologne and Dresden.

SPEER – HITLER'S ARCHITECT

Writer: Martin Kitchen **Publisher:** Yale University Press **Price:** £20 **Released:** 15th October 2015

WOULD THE REAL ALBERT SPEER PLEASE STAND UP? A NEW BIOGRAPHY FINALLY REVEALS THE TRUTH ABOUT HITLER'S CITY-PLANNING SIDEKICK



Of all the senior Nazis, Albert Speer is largely remembered by history as his lawyer at the Nuremberg trials wanted him to be seen – a cultured technocrat with no interest in Hitler's racist policies and no knowledge of its consequences. Described as courageous in the court's judgement of him, he escaped the hangman's noose, and although he spent the next 20 years in jail for war crimes, calls for this apparently civilised man to be released early came from such notables as Charles de Gaulle and Nuremberg prosecutor Harley Shawcross.

On emerging from prison, where he'd spent much of his time composing two memoirs in which he insisted he knew nothing of the Holocaust, he gave a series of high-profile interviews. Speer used these to broadcast his ignorance of the regime's more heinous crimes, and to portray himself as a man who merely dreamed of creating beautiful buildings for his beloved country. His books – along with another about the SS – went on to become international best sellers, and he died of natural causes, aged 76, a wealthy man.

Albert Speer was, however, as Martin Kitchen's new book points out, much more

complex and culpable than his legacy suggests. Others, of course, have argued that Speer knew about Hitler's genocide all along, and that he was more than just a man who designed pretty cities for his architecturally obsessed Führer. *Hitler's Architect*, however, is the first biography of Speer to take the evidence that he did know of the regime's atrocities and put it into context with the rest of his life.

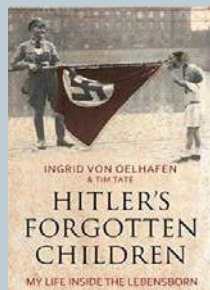
What emerges is a portrait of a man who was a vain, opportunistic playboy, and an intelligent, brooding loner. What he ultimately was, though, was a cold-hearted conman whose decisions and actions resulted in the anguished deaths of countless souls. Speer's life as we've known it until now was a fiction, a piece of theatre as showy and diverting as the enormous stage sets he built for his Führer to hold his rallies in, or preach hate parades from.

Kitchen's book systematically destroys the myth that Speer was somehow a 'good Nazi', and in doing so rips the mask of respectability from this legacy. Part history, part criminal investigation, part biography, Kitchen's book is as captivating as it is significant. *Hitler's Architect* is a vital work.

ALL ABOUT HISTORY RECOMMENDED READING

HITLER'S FORGOTTEN CHILDREN

Born a child of the Lebensborn programme, Ingrid von Oelhafen's book details her memories of her childhood in Hitler's home for Aryan children.



BELFAST '69

Bringing home the real human tragedy of The Troubles, Andrew Walsh's historical account of the Battle of Bogside is interspersed with eyewitness accounts from people at the heart of the battle.



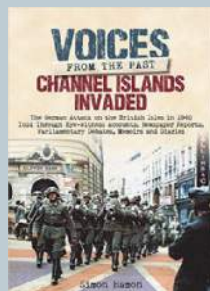
HOW TO WIN A CHARIOT RACE

This collection of facts, stories and titbits of information offers a glimpse into the ancient world, and is not, in fact, a step-by-step guide about how to succeed at chariot racing.



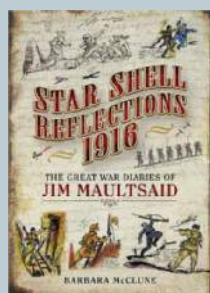
VOICES FROM THE PAST

Told by the people who were there, *Voices From The Past* delves into the chaotic scenes on the Channel Islands as Hitler's Blitzkrieg arrived and occupation ensued.



STAR SHELL REFLECTIONS

In the closest thing we have to a first-hand account of WWI almost 100 years since its end, Jim Maultsaid's detailed diary provides an insightful perspective on the conflict.



50 STRATEGIES THAT CHANGED THE WORLD

Writer: Daniel Smith **Publisher:** Apple **Price:** £12.99 **Released:** Out now

A BREAKDOWN OF THE GREATEST STRATEGIES IN HUMAN HISTORY, FROM THE BLOODY BATTLEFIELD TO THE BOARDROOM AND SOCIAL MEDIA

For history buffs, this engaging book may be a welcome reprieve. Rather than the usual weighty tomes that are invariably densely packed with information, it's a bold and colourful publication, divided into digestible snippets that will work for readers of all interest levels.

Author Daniel Smith, who has also written other appealing-sounding titles such as *50 Leaders That Changed History* and *How To Think Like Sherlock*, has done a superb job condensing some of human history's greatest strategies and tactical manoeuvres into easy-to-understand chapters, most of which cover four pages that also include timelines, maps, family trees and other fun visual tools.

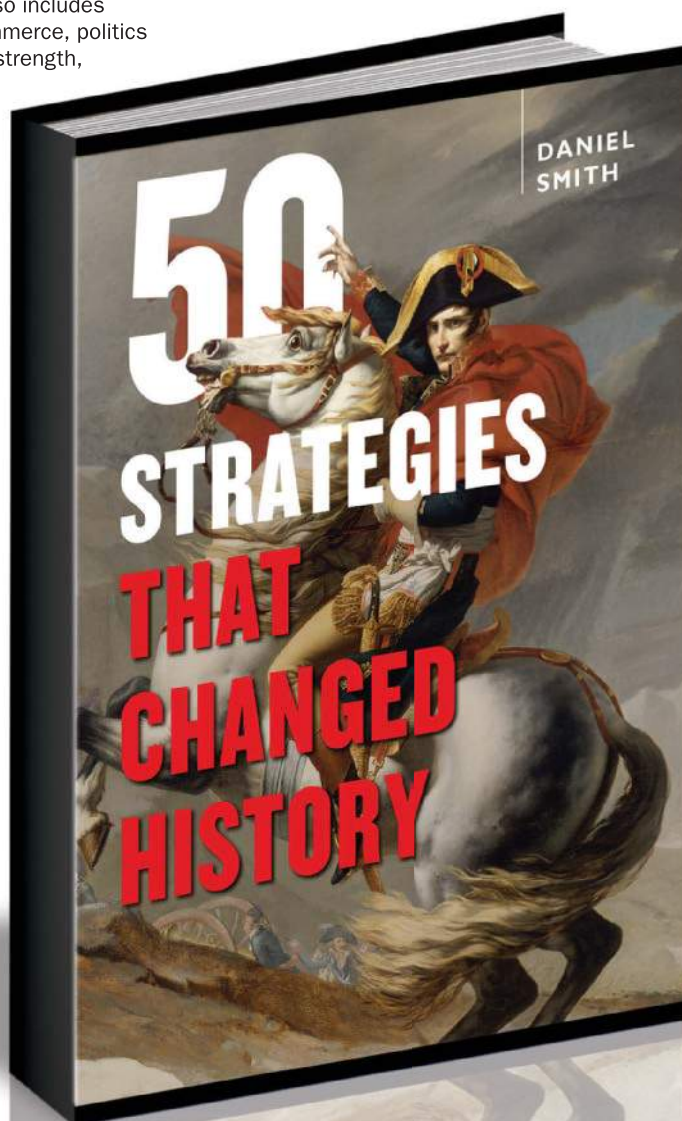
It's worth stating that this is not a purely military-focused book. Smith also includes strategies that come under commerce, politics and society. Part of the book's strength, however, is that it shows quite plainly how the strategies are easily interchangeable between varying arenas of conflict, whether they are militaristic, economic or perhaps sociopolitical.

Smith covers the breadth of human history, beginning with perhaps the most famous and celebrated of all military strategies, the Trojan Horse (or "infiltrate the enemy" as he broadens it to). From there, he covers many of military history's finest successes, including George Washington's guerrilla-like strategy in the American War of Independence, Nelson's innovative naval formation at the Battle of Trafalgar and the Allies' intricate planning ahead of D-Day. Smith isn't afraid to recognise the success in all strategic areas, even when the results are horrific, such as the Nazis' Final Solution.

Outside of the military-focused chapters, there's plenty of interest, from the Suffragettes battle for equality to Rupert Murdoch's media empire and even the launch of Facebook (and most specifically, how social media became a crucial tool in

Barrack Obama's presidential campaign). There are a few entries that seem slightly tenuous, or retread ground already covered earlier in the book, but these are small quibbles in what is overall a strongly recommended title.

"It's a bold and colourful publication, divided into digestible snippets that will work for readers of all interest levels"



AGINCOURT: THE STORY OF A BATTLE

Writer: Rosemary Hawley Jarman **Publisher:** Amberley **Price:** £9.99 **Released:** Out now

A DETAILED AND VIVID ACCOUNT OF THE ENTIRE STORY BEHIND THE FAMOUS BATTLE

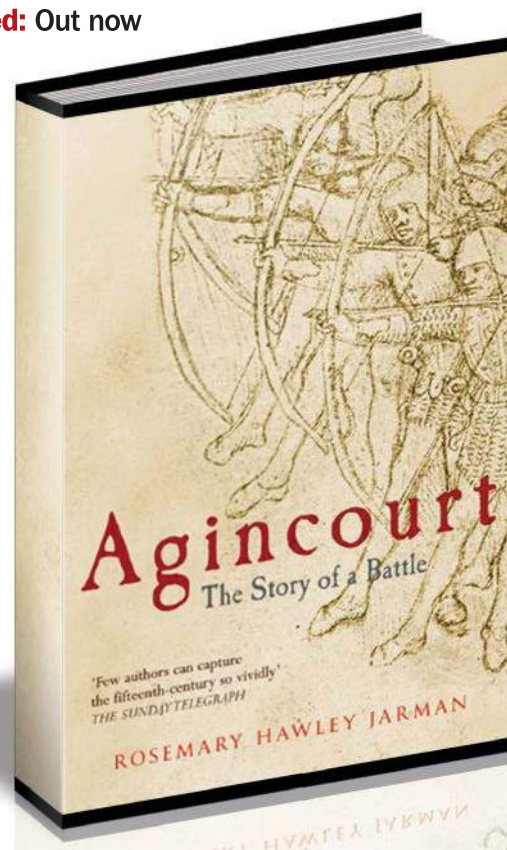
A prominent author of historical fiction, Rosemary Hawley Jarman turns her attention to fact in the brilliant *Agincourt: The Story Of A Battle*. Detailing the whole of Henry V's invasion, this is a thorough account of an integral part of English and French history. Split into easily digestible chapters, the book explains how the Hundred Years' War was a full European war and incorporates detail that is absent in similar releases. It is clear from the outset that Jarman is a writer of fiction and the whole invasion is detailed superbly. The residents of the "noxious graveyard of Harfleur" are described as "running around like inhabitants of a kicked antheap," vividly illustrating the panic that was present in the seemingly impregnable walled city.

This excellent description prevents the book from ever getting bogged down in facts and statistics, a trap that some do fall into. One

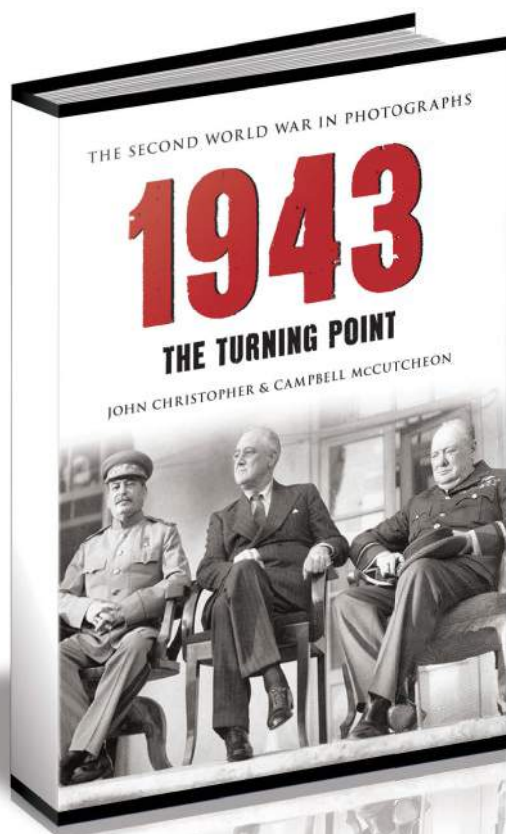
of the most appealing aspects of the book is how Jarman delves into the mind of King Henry, explaining his desire to emulate the achievements of his great-grandfather Edward III and his devotion to his faith. After some gorgeous hand-drawn illustrations, the only chapter dedicated to the battle itself arrives. Compact yet thorough, it doesn't hold back on description, with the "shoeless, gloveless, pale and desperate" longbowmen portrayed as the heroes of the hour. After the catastrophic French defeat where "deep piles of corpses towered higher than a man's head," the book slows down and enters a reflective aftermath that focuses on the wider aspects of Henry's reign.

A tremendous release, this book is recommended highly and is an excellent way to remember Jarman's writing, as she sadly passed away on 17 March 2015.

"Compact yet thorough, it doesn't hold back on description, with the 'shoeless, gloveless, pale and desperate' longbowmen portrayed as the heroes of the hour"



THE SECOND WORLD WAR IN PHOTOGRAPHS: 1943 – THE TURNING POINT



Writer: John Christopher & Campbell McCutcheon **Publisher:** Amberley **Price:** £15.99 **Released:** Out now

A PICTORIAL ACCOUNT OF THE YEAR THAT SAW THE ALLIES GO ON THE OFFENSIVE, WITH MAJOR VICTORIES IN NORTH AFRICA, THE PACIFIC AND EUROPE – LEADING TO PREPARATIONS FOR D-DAY

Another stellar entry in this excellent series, John Christopher and Campbell McCutcheon's book tells the overall story of the war in 1943, as opposed to Louis Archard's earlier book in the series, which focused primarily on the battle in the air. Focused, as it is on photographs, the story is told in relatively broad strokes, though an in-depth introduction lays out the finer details of the war in 1943, making this a solid read for casual and expert World War II enthusiasts.

It's fair to say that this book offers more interesting details than previous entries into the series, largely because of the time on which it is focused, chronicling the Allies' efforts to overcome the Axis and turn the tide of the war for good. Events covered include the Battle of the Huon Gulf, in which the Allies destroyed three Japanese transports and 80 aircraft; Stalingrad, where the loss of the 6th Army resulted in Germany's most humiliating defeat in the war so far; and the invasion of Sicily, a

compromise before the Allies could launch a full-scale attack of France.

As with the other books in this series, a bulk of the 160 pages are packed with fascinating visuals, comprising photographs (both colour and black and white), maps, cartoons and posters from the time.

Among the most striking images are a British destroyer completely encrusted in ice en route to Russia, a prototype for Germany's revolutionary Messerschmitt Me 262 jet, a Douglas Dauntless dive bomber that's somehow ended up standing nose-first on an aircraft carrier deck, and a Lewisham school annihilated in an air raid (where 42 children were killed – a stark reminder that while the war had come to a turning point, there would be many millions of more casualties before it would end). Overall, this is a great starting point for researching one of World War II's most crucial periods – and possibly the best entry into this series so far.

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Wyndham Peterborough, Storey's Bar Road, Peterborough, Cambridgeshire, PE1 5YS

Distributed in the UK, Eire and ROW by: Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU
☎ 0203 787 9060

Distributed in Australia by: Network Services (a division of Bauer Media Group), Level 21 Civic Tower, 66-68 Goulburn Street, Sydney, NSW 2000
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IMAGINE
PUBLISHING

ISSN 2054-376X
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WWI VENTRILOQUIST'S DUMMY

Douglas was used by Arthur Langley Harden in his ventriloquism act to entertain the troops when he served with the Royal Artillery during World War I

One of the most popular ways to relieve soldiers of boredom on the battlefield was a ventriloquism show

Life in the British Royal Artillery during the Great War could be very dull. One way of ending the tedium was with ventriloquism acts, and 'Douglas' was the star of one of these popular shows.

Rumoured to be named after Field Marshal Haig, Douglas was the prop of soldier-turned-ventriloquist Arthur Langley Harden, who arrived in France for service in March 1917.

Initially performing in front of the 59th Divisional Ammunition Column, after a few shows Colonel K C Brazier-Creagh noticed the positive affect the dummy was having on morale.

Subsequently, Harden and Douglas were moved away from the front line to perform the act to injured soldiers. The show was such a success that it even dissuaded Harden from pursuing an officer's commission, a decision that he said could well have saved his life.

Ventriloquism was just one of the ways that troops were entertained on the front. Theatre and

football were popular but the men also improvised as well. Shows were put on that included men cross-dressing, acting out folk tales such as *Cinderella*, and soldiers even wrote new material on the front. The Balmorals were a theatrical troupe that performed satirical sketches, and even POWs performed when they were imprisoned to raise the morale of the others in German prison camps. Props were created out of anything the men could find on the front line as the soldiers did their best to take themselves away from the harsh reality of war.

Douglas is currently on display at the Imperial War Museum, London. For more information visit www.iwm.org.uk.

Far left: A party of Royal Irish Rifles resting in a communication trench early in the Battle of the Somme
Left: Football was another form of entertainment. This picture is of a match in Greece, Christmas Day 1915

Image © IWM



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